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ABSTRACT

Noting that care and teaching can be provided simultaneously by a knowledgeable, responsive, warm and loving parent or child care workers, this infant and toddler handbook provides developmentally sequenced cognitive, social, motor, and language activities, called "invitations," for infants and toddlers from birth to 24 months. Chapter 1, "Infant/Toddler Development," discusses social, motor, language, and cognitive development from birth to 24 months. Chapter 2, "The Infant/Toddler Environment," describes how to arrange an appropriate environment for infants and toddlers, including identifying trouble spots, arranging indoor and outdoor play spaces, and conducting basic care routines. Chapter 3, "Invitations to Look and Listen," describes visual and auditory preferences and the caregiver's role, and presents activities using sight and sound. Chapter 4, "Invitations to Touch," describes tactile activities. Chapter 5, "Invitations to Communicate," describes the role of the caregiver and presents language/communication activities. Chapter 6, "Invitations to Move," discusses the balance between safety and freedom in the infant and toddler's environment and presents motor activities. Chapter 7, "Invitations to Discover and Solve Problems," discusses the child's emerging understanding of cause-effect relationships, object permanence, and goal-directed behavior; the role of the caregiver and the importance of freedom to explore and a responsive environment; and presents relevant problem solving activities. Each "invitation" delineates the emerging ability involved, the caregiver's role, and the activity. Appendices provide a list of resources and materials and a system for matching caregiving activities to the child's individual temperament. (KDFB)

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The Infant & Toddler Handbook

Invitations For Optimum Early Development

Kathryn Castle, Ed.D.

Humanics Limited * Atlanta

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to Adam and Clint
and their father,
Douglas B. Aichele

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Introduction

The Infant & Toddler Handbook – Invitations For Optimum Early Development is a practical guide for adults who care for or plan to care for infants and toddlers in a home or group setting. Parents, caregivers in day care programs, and preschool teachers will be able to use the described activities in interactions with infants and toddlers.

What are Invitations?

Extending "invitations" to infants and toddlers means providing them with appropriate learning opportunities, activities and materials which help them grow in all areas of development - motor, social, language, and cognitive.

Examples of learning invitations are:

Invitations to:

Look

human face; complex patterns; variety of colors; pictures; photographs; mirrors; wall displays; crib toys; nature objects; books; objects that move such as mobiles, fish, and animals; variety of situations which provide differing visual points of view.

Listen

human voice; rattles; music boxes; chime balls; bells; records; musical instruments; telephone conversations; concerts; environmental sounds.

Touch

human bodily contact; massages; objects with a variety of shapes and angles; objects with various parts; rough and smooth objects made of plastic, wood, metal, cloth, paper, and fur; water; household objects such as pots and pans; measuring cups and bowls, wooden utensils, and a variety of containers; busy boxes; cradle gyms; safe objects to mouth and tongue such as teethers in a variety of shapes and textures.

Communicate

traditional games of Peek-a-Boo, Pigs-to-Market, Pat-a-Cake, and other nursery rhymes and finger plays; spontaneous games such as imitating, mimicking, kissing, tickling, blowing, mirror play, ball games, and hide and seek games.

Move	freedom and space; pull and push toys; all sizes of balls from hand-size balls to beach balls; inflatable toys; safe environment for crawling, pulling up, standing, and walking.
Discover and Solve Problems	toys for batting, banging, rolling, throwing, hiding, taking apart, and putting inside containers; toys which disappear and reappear; audio-visually responsive toys which produce an interesting effect when manipulated; blocks; stacking and nesting toys; and puzzles.

For caregivers to be able to extend learning invitations, they must understand the progression of infant and toddler development. Caregivers must also become acquainted with the unique and individual characteristics of the specific children with whom they work.

Caring and Teaching

When infant and toddler caregivers are caring for their children, they are also teaching them. The reverse is also true. Caring and teaching are highly interrelated. They serve similar purposes and produce similar developmental outcomes. Responsive caregivers understand the importance of an interesting environment and social contact to a child's normal growth and development. Responsive caregivers use simple care routines such as feeding and diapering as teachable moments. Thus care and teaching can be provided simultaneously by a knowledgeable, responsive, warm and loving parent or child care worker who enjoys interacting with young children.

Today you can find an abundance of research literature on all aspects of infant and toddler devlopment. Practical guidelines for applying this knowledge to working with young children, however, are sadly lacking. This book is designed to give caregivers practical assistance with the everyday events which occur while working and caring for very young children from birth to about twenty-four months. The purpose of this book is to provide caregivers with the important knowledge and activities they need to help the children in their care develop to their full potential.

A special feature of this book is the ease with which caregivers can locate specific activities which will foster various aspects of development. For example, if the caregiver is interested in communication games, she can turn to the section on Invitations to Communicate and find a variety of activities developmentally sequenced. These activities are written in such a way that they can be easily converted to activity cards and organized in a file box for ready use according to area of development and sequence of development (from birth through twenty-four months). Activities organized in such a way will provide a convenient curriculum guide for caregivers in group settings as well as for parents in the home.

Throughout the book the caregiver is called "she" and the child is "he". This usage does not indicate that female caregivers are in any way superior to male caregivers or that all children are males. Rather, these designations simply attempt to provide a balance in the text.

Chapter 1
Infant/Toddler Development

Introduction

Except for the prenatal period of development, a human being's most rapid growth and development take place during his first twenty-four months—as an infant and a toddler. The young child grows from a reflexive infant who has little control over his environment into an independent toddler with a well-developed sense of self, capable of doing a great many things. Children who live in a barren environment lacking human contact and learning opportunities during this important period will not develop in the same way as children who have warm, responsive caregivers and live in a more interesting setting.

Social Development

The most important aspect of the baby's social development is the formation of the attachment between the infant and his primary caregiver. Attachment is a gradual process which becomes established at about six or seven months of age and is evident when the baby begins to respond differently to his primary caregiver than to others. He may cry when the caregiver leaves the room or smile when she enters it again. A baby who forms a good attachment to the primary caregiver will be better able to have positive relationships with others during later stages of development. A good attachment is also necessary for the child's intellectual development. Babies who are well attached to their primary caregivers will be able to use the caregiver as a security base from which to explore the environment and learn about the world. Babies are capable of making multiple atttachments, and will become attached emotionally to other important people present in their everyday lives, such as other family members.

During the first two years of life, children develop a view of themselves as individuals. The self-concept includes what the child thinks about himself in terms of his capabilities, physical characteristics, and self-worth. A child's self-concept is greatly influenced by the feedback he receives from important people in his life. If caregivers tell and show him that he is a valued, worthwhile person, he will begin to view himself in a positive way and feel good about himself and his capabilities. If caregivers tell him he is dumb, clumsy, or funny looking, his self-concept may become negative and he may consequently view himself in a negative way. A child's self-concept affects everything he does. Children who have positive views of themselves are more successful in everyday life and later in school. Children who have a negative view of themselves tend to do less well. During the first two years of life caregivers can help children develop a positive view of themselves by helping them become successful at tasks, showing genuine interest in them as individuals, and maintaining positive, loving relationships with them.

Motor Development

Motor or physical development is the one area of development which is most visible to caregivers. During the first two years, children grow remarkably in size and motor control. They change from tiny babies, who flail arms and legs without much control, into walking, running, jumping toddlers who can exercise a great deal of control over their bodily movements.

Control over the body proceeds from head to toe and from middle to extremities. Babies develop control over moving their heads, necks, arms, legs, fingers, and toes in a sequential order. Babies first learn to move and hold up their heads; then reach out with arms and hands; roll over; sit without support; manipulate objects with their hands and fingers; pull themselves to a standing position; stand alone; walk alone; and run. All within twenty-four months! These are amazing accomplishments for such a short period of time.

Caregivers can help their children develop physically by providing proper nutrition, encouraging exercise, providing freedom in a safe environment for the children to practice emerging physical skills, and expressing interest in their children's accomplishments.

Language Development

During the first two years of life, children go from uttering the first sound or cry to speaking in simple sentences. Young babies begin to gurgle and coo at about two monthes. Then by about six months they are babbling vowel-consonant syllables. Babies will babble sounds from all languages. Eventually as a result of listening to the speech of the caregiver and others, and being imitated by the caregiver, a baby will begin to use only the sounds of his native language. Usually by the end of the first year he speaks his first word or two. First words tend to be names of important people such as mama or dada, or simple object names like ball, cup, or bottle, or action words like go, bye-bye, or up.

Typically, toddlers will begin to put two words together to convey a message such as "go car" meaning "I want to go in the car," or "mama water" meaning "Mama, please give me some water." By twenty-four months of age, many children are using simple sentences and have a growing vocabulary of many words. By this time children have learned not only the meanings of words and labels for objects but also some of the rules for putting words together.

Caregivers can encourage language development by frequently talking to their children. Caregivers can tell the child names for objects and help the child build a language vocabulary. Elaborating a little bit on what the child says is also very helpful and will stretch the child's language development. For example, when toddler says, "Dada go," caregiver may elaborate, "Daddy is going in the car." In this way, the caregiver provides a language model for the child.

Cognitive Development

Cognitive or intellectual development during the first two years is just astounding. The baby goes from having one or two primitive concepts about the world to developing complex categories for classifying new information. At birth, babies cannot distinguish between themselves and the rest of the world. It is only after repeated interactions with others and objects that the baby begins to see himself as a separate individual in the world.

During the first two years, children develop purposeful, intentional behavior. They begin to perceive cause-effect relationships such as "a loud noise happens when I drop the spoon." Then they begin to work toward goals such as reaching a distant toy. Later they become able to solve problems such as how to get one object from inside another object. By the end of the first

year, most children have developed the concept that objects and people continue to exist even though hidden from view. By the end of the second year, many children can visualize objects that are not present. For example, a two-year-old will often imitate an action he has seen the day before such as an elephant walking.

Caregivers can encourage cognitive development in a variety of ways. An interesting, responsive environment invites learning. Caregivers can play with their children, talk to them, read to them, and explain things to them. Caregivers can help children perceive and understand cause-effect relationships by being consistent in child rearing techniques and explaining about objects. Children tend to become more actively involved in activities when caregivers show them that what children do is interesting to them.

Chapter 2
The Infant/Toddler Environment

Introduction

The infant/toddler caregiver can have a great influence on the child's development by designing an interesting, responsive environment for the child to explore. Check over the environment regularly to be certain that it is changing to meet appropriately the changing needs of the growing child. Take inventory of the environment from the child's point of view at each stage of development. For young babies, try to view the environment from a position as the baby would see it from the crib. For a crawling child, get down on the floor on hands and knees to look around. Answer these questions: What does the child see from the various positions he is in during the day? Does the child see an interesting environment? Are there interesting objects within reach for the child to explore? Is movement unrestricted? Is the environment safe for the child who does not understand danger? How can I make changes to design a more interesting and appropriate environment?

The key elements of an appropriate environment for infants and toddlers include:

- safety
- freedom to explore within reasonable boundaries
- responsive toys which do interesting things when manipulated
- toys and materials within the child's reach

Trouble Spots

While checking over the environment, watch for trouble spots which could pose a threat to an exploring child. Exploring crawlers and toddlers like to poke their fingers and other objects in the electrical outlet holes, so it is best to keep them covered. You can cover them with plastic plugs which are available at hardware stores. Small appliance cords and lamp cords are best eliminated or taped underneath a table out of sight so that a child cannot pull lamps and other objects off tables by their cords.

Young children just beginning to pull themselves up to stand will often pull and lean against pieces of furniture. So furniture should be sturdy and stable. Sharp edges of tables, chairs, fireplaces, and other furniture should be removed or padded. You can purchase padded corners at baby furniture stores or make them from padding materials. Remove or fix any loose rugs or carpets so that toddler won't slip and fall while toddling about. It is probably best to barricade stairs with gates until toddler has mastered going up and coming down. When toddler begins opening and closing drawers on his little fingers, you can place blocks of wood behind dresser drawers to prevent them from closing completely.

Toxic chemicals and nonedible plants pose another hazard. Children will taste any substance which looks inviting, such as household cleansers. It's best to keep these things up high, out of reach, or locked up. All medicines should be out of reach or locked away. Needless tragedies have occurred because parents have not adequately baby-proofed the house.

All of baby's furniture and playthings should be made of nontoxic materials and paints. Babies tend to explore all surfaces with their mouths. Crib sides should have teething rails. Always keep the sides of the crib in an up and locked position when baby is in the crib.

The least safe room in a typical house is probably the bathroom. The hard floor, tile, and bathtub can be hazardous to a falling baby. You may want to keep the bathroom closed off from baby's explorations until the child is older and more stable on his feet.

If there are breakable treasures in the house which could get broken by an exploring child, it is probably better to put those things away for awhile than to be constantly restricting your child's movements. Young children can learn to handle objects gently. But accidents do occur so these lessons are best learned with nonbreakable items. Also, remove small objects which a child could put in his mouth and swallow. Sometimes these objects are hard to spot for adults but are found easily by a child. For example, a child fingering the shag carpet may discover a straight pin an adult might miss. So be diligent.

Arranging Indoor Play Space

Growing children derive a great deal of benefit from having freedom to explore, within reasonable limits, in a safe environment. Children suffer and do not develop adequately when overly restricted. Babies like variety and a change of positions. They do not like to be left in any one place for very long, and they benefit from seeing the world from a variety of angles. Therefore it is important to change baby's position often. The caregiver needs to move the baby regularly from crib to floor to swing to being carried around to infant seat, etc. You can put the baby down on the floor very early on, as early as the first few weeks of life. Crawling and walking children can change their own viewpoints but continue to benefit from being exposed to different places.

In designing an appropriate environment for each stage of development, take this "time-table" into consideration:

0-3 months—emphasis on interesting things to see and hear

3-6 months—emphasis on interesting things to touch and manipulate

6-9 months—emphasis on interesting things to take apart, put inside, bang, pat, throw, and roll

9-12 months—emphasis on things to crawl inside, over, under, and around

12-18 months—emphasis on things to push, pull, and carry

18-24 months—emphasis on things to ride, roll, and use to imitate adult activities

Be sure that indoor play space is arranged so that toys and materials are within the child's reach. It is very frustrating and time-consuming for an active child to have to ask for a toy out of reach. So put books, puzzles, manipulatives, blocks, and vehicles where the child can get hold of them easily.

Provide a balance of activities so the child has access to toys which encourage large muscle development as well as those which encourage fine motor control. Provide open spaces for the child to propel himself freely through space and also private spaces where the child can be alone to snuggle up with a favorite book or stuffed animal. Include interesting toys which invite playing alone. You will also want to provide opportunities for the child to play with caregiver and with other children. There should be materials for sense pleasure play; expressive play; constructive play; and dramatic play. You might consider setting up some of the following activity centers.

Infant/Toddler Activity Centers

Manipulative Area: Contains objects which do interesting things when manipulated by child and objects which embody concepts of texture, size, shape, color, noise, and movement. Examples: teethers; rattles; chime balls; bells; problem-solving toys; texture balls; peg board with giant pegs; large plastic milk cartons or containers with lids for screwing and unscrewing; and shape boxes.

Construction Area: Contains materials which can be put together in various creative ways. Examples: soft, hard, and hollow blocks; large and small containers holding sets of objects such as old-fashioned clothespins; pounding boards; simple puzzles with one to three pieces; nesting and stacking toys; and large beads for stringing.

Book Area: Contains lots of good picture books which are sturdy, made of heavy cardboard, vinyl, or cloth, and easily cleaned; books made especially for the child with significant photographs of familiar people; books made with textured objects; and an area for private space such as a large flour bin with a cut-out so child can crawl into it.

Gross Motor Area: Contains large floor space with padded covering; large equipment for exercising large muscles; push toys; pull toys; wheeled toys (no tricycles yet); wagons; and climbing apparatus.

Wet Area: Materials for sense pleasure play such as a water/sand table or tubs and water toys; easel painting; finger painting; and cooking activities.

Art Area: Materials for artistic expression such as flat crayons; non-toxic markers; paper; collage materials; paste; and play dough.

Socio-Dramatic Play Area: (18 months and above) Materials which invite toddlers to act out various roles such as Mommy/Daddy: hats; dress-up clothes; housekeeping materials; telephone; mirror; cradle; dolls; loveys and stuffed animals.

Other Materials: Musical instruments; record player and records of simple songs and nursery rhymes; infant swing *(for short periods only)*; low storage shelves to make materials more available to child.

Arranging Outdoor Play Space

It is very good for infants and toddlers to spend time outdoors, as long as they are dressed for the weather. In fact, the outdoor environment is as important to a child's development as the indoor environment and should be just as safe and interesting as the indoors. Possibilities for outdoor play include nature walks, swinging, pushing and pulling wheeled vehicles (such as wagons), climbing, sandbox and water play, painting, and woodworking.

Even young babies enjoy nature walks in which they smell flowers, touch the leaves of trees and plants, feel the grass on their feet, touch sand and dirt with their hands and feet, watch animals and insects at work, listen to nature sounds such as the wind, bees buzzing, birds chirping, dogs barking, and leaves rustling. Do watch out for outdoor troubles such as too much sun or wind, stinging insects, unfriendly animals, poisonous plants and berries, broken glass, and objects small enough to be swallowed easily. Young children need close supervision both in and outdoors.

Basic Care Routines

Basic care routines such as feeding, diapering, bathing, dressing, and sleeping occur so regularly that we often develop consistent patterns for handling them which become very automatic. Since we repeat these routines daily, the time spent going through them really does add up. Unfortunately, for some caregivers the attitude seems to be, "Let's get this over with so we can move on to something else." But in fact, these routine times offer a wealth of opportunities for "teachable moments." Rather than rushing through them with little conversation with the child, we could be talking, singing, reciting poetry, or explaining what is happening. This interaction with the child will help promote the child's language and intellectual growth.

In order to make the most of time spent on basic care routines, it is important to have the environment set up so that everything is within easy reach when needed. For example, diapers, wipe cloths, powder, etc., should be at hand so that caregiver can get through a diaper change easily and efficiently. While bathing a baby, it is important that wash cloth, soap, and towel be easily accessible so that caregiver will not have to stretch or let go of a wet baby in order to reach something. A little bit of effort in organizing the materials for these basic care routines will be well worth the trouble.

Ideas for Feeding

Hold baby during a feeding and encourage him to take part in the activity. Holding him will surround him in a social atmosphere of warmth and security. Later when he is able to hold a spoon and cup, give him opportunities to practice feeding himself even though it's messy. Talk to him or sing while he eats. Most babies enjoy being with other family members during mealtimes to "join in" the family socializing.

Attach suction cup toys to the highchair tray. Because most children enjoy throwing things off the side of the highchair, it's also a good idea to tie a toy or set of plastic measuring

cups with a string to the arm of the highchair so that baby can throw it off and fish it up again.

Make mealtime a pleasant, unhurried experience. When children are rushed through mealtimes they tend to develop poor eating habits. Talk about the different foods the child is eating and name them for him. Do not always feed the child from the same side. Switch sides, and offer him eating utensils from a central position so he can take them with either hand.

Ideas for Diapering

Suspend an attractive mobile or picture over the changing table so that baby will have something interesting to look at and eventually bat. Play a music box during the change. Talk about what is happening as it occurs.

When the child is able to help, ask him to hand you the diaper or wipe cloth. Young children love to feel helpful. Encourage the child to position himself appropriately for changing. Give the child an interesting toy to hold during a diaper change. Talk about the toy and describe it to him. Play tickling games.

Ideas for Bathing

During the bath, name each of the baby's body parts as you touch it. You may even want to sing a song about bathing, such as, "This is the way we wash your toes, wash your feet, wash your legs. This is the way we wash your knees so early in the morning."

Provide bath toys for the child. Make a floating barge from an empty plastic mild carton. Put holes in the bottom of a clean, empty plastic syrup or detergent container to create a shower effect. Use a mesh bag for holding and drying bath toys.

Encourage baby to enjoy the sense pleasure play of splashing water with his hands and feet. But never leave a young child in a tub unsupervised.

Ideas for Dressing

Describe each article of clothing as you put it on. You may want to turn this into a song. Encourage an older child to help in the activity by raising his arms, sitting up, or holding up a foot. Lay out the articles of clothing for an older child and ask him to hand you a sock, a shoe, a shirt, etc.

Ideas for Sleeping

Establish a set routine for going to bed so that the child will know what to expect and can prepare himself for sleep gradually. For example, first put on pajamas, then read a book, then

get a drink, then have a kiss, then get tucked into bed. A well-established routine for going to bed will prevent bedtime resistance later. It also helps the child feel more secure and able to "let go" and fall asleep easily.

Toys

When selecting toys for infants and toddlers, consider the child's emerging abilities—that is, what the child is *beginning* to do—and select toys which encourage these emerging abilities. For example, babies who are beginning to put objects in their mouths will benefit from having a variety of teethers with different shapes and textures. Children who are beginning to stack objects will benefit from having blocks, bowls, boxes, and other stackable items available. Children who are beginning to climb will benefit from having appropriate climbing equipment. Observe the child and look for new emerging behaviors which you can encourage with toys and materials. Then choose toys which will draw the child into active play.

Good toys for infants and toddlers are hard to find, although more and more companies are producing better and more appropriate baby toys. Since they are not yet plentiful, you must be very selective in purchasing baby toys. The age levels given on the boxes tend to be very misleading and often inaccurate. Therefore it is better to consider the developmental stage and emerging abilities of the child for whom the toy is intended rather than his chronological age. Some toys which describe themselves as being for infants and toddlers are really more appropriate for older children. A toddler can become very frustrated by small plastic nesting cups which a three-year-old would find fascinating. Rattles are not appropriate until baby is able to reach for the rattle and also to let go of it intentionally. The typical jack-in-the-box with the crank to turn is too difficult for most toddlers who are incapable of making the appropriate wrist twisting motion to turn the crank. Most commercially produced busy boxes require movements such as dialing a phone or turning a small knob which can be too difficult and frustrating for a toddler. And most of these busy boxes become boring after about fifteen minutes of play.

Look for responsive toys which do interesting things when handled by a child. Audio-visual responsive toys which make sounds and produce interesting visual effects can become baby's favorite playthings. Examples of these include chime balls, stuffed animals which chatter or squeak, wind-up alarm clocks, and pull string music boxes.

Toys which children will remain interested in playing with the longest are usually the flexible ones which are open ended and encourage creative expression. Children become bored with toys designed to do only one thing and nothing else. But they will keep returning to toys and materials which are more versatile and can be played with in a variety of ways. For example, a toy truck made of unpainted natural wood can become a firetruck, garbage truck, transport truck, dump truck, or utility truck. But a truck that's painted red with a bell and ladder can be only a fire engine and will limit the child's play activities. A doll with feminine features, a made-up face, and frilly dresses does not encourage as much imaginative play as a rag doll with a few simple features. Other examples of more open ended materials would be all types of blocks, balls, play-dough, clay, markers, and paint.

Choose toys which are attractive, durable and washable. What is attractive to an adult may not interest an infant. Often a child's favorite plaything will be something very simple such as a ball. Babies and toddlers typically love to play with a variety of balls because balls are

unpredictable and do such interesting things. Household items also become favorite toys. Examples are all types of paper to manipulate; plastic bowls; plastic refrigerator containers; measuring cups and spoons; wooden spoons; plastic laundry baskets; old perculators with dangerous parts removed; wind-up alarm clocks; cardboard boxes of all sizes; plastic bottles which have been cleaned; and hot pads and mitts. Young children are attracted to bright, bold colors, and to interesting designs, textures, sizes, and shapes. Try to provide a balance of different materials so the child isn't getting just one kind, such as nothing but plastic materials. Be sure that all surfaces of toys are washable. Many stuffed toys are made now so that they can be washed in a washing machine.

The most important element in selecting toys is safety. Many toys on the market today are potentially dangerous. Others are significantly less so. The key aspect to remember about toy safety, however, is that *there is no such thing as a safe toy.* Children can find ways to hurt themselves with even the safest of toys. Therefore adult supervision of play is vital. In fact, *every toy and activity described in this book should be supervised by an alert adult.* And always remember: no toy should be considered completely safe.

There are certain guidelines to follow when selecting toys, however, which will help insure that your child has the safest possible toys. For optimal safety, choose toys which:

- are too large to be swallowed
- are made with non-toxic materials, paints, and surfaces
- are unbreakable and have no parts which when detached would pose a threat
- have no sharp edges, points, or pinching cracks

Materials which have hurt young children include small baby rattles, such as the clothes pin or dumb bell kind, which can be swallowed; plastic bags which can suffocate; sharp wires attaching the limbs, eyes, or features of stuffed animals; squeakers which can become detached and be swallowed; small projectiles from toys designed for older children; button eyes or noses which can be bitten off stuffed animals or dolls; styrofoam materials; small beads; splintering plastic which can cut and gouge; rungs on ladders through which a child's head could get stuck, posing a choking threat; and ropes. Be sure to watch out for these hazards and others which may develop from potentially harmful toys.

The U.S. Consumer Product Safety Commission publishes a free pamphlet called "For Kid's Sake" which describes seven toy dangers: sharp edges, small parts, loud noises, sharp points, propelled objects, wrong toy for the wrong age, and electric toys. For a copy of this pamphlet write: Toys/Washington, D.C. 20207 or call the toll-free hotline: 800/638-2666.

Equipment

Equipment for infants and toddlers such as cribs, swings, strollers, carriages, changing tables, bassinets, and car seats should be selected for safety. Be sure that whatever you buy meets the current government standards for safety. Before selecting a piece of equipment ask:

- Is it safe?
- Is it designed to meet the child's needs or an adult's needs?

- Will it help the child's development?
- Will it be overly restrictive to a child's movement?
- Will it detract from more important activity?

Equipment which appeals to adults can often be inappropriate for meeting the needs of a developing child. For example, playpens, jumpers, and walkers are attractive to adults but inappropriate for a developing child and can become overly restrictive and harmful if used on a continuous basis. If a child is left for long periods in a playpen or jumper, the child's movements may become so restricted as to hinder motor development and curiosity about the environment. A child who is not free to explore will eventually lose all interest in exploration.

When a child is placed in a walker, an adult may have the illusion that the child is "walking" and benefiting from his increased mobility. Parents are often eager for their children to learn to walk and will put their children in a walker so that they can get from place to place easily and quickly. Some authorities feel, however, that walkers are inappropriate because they place weight and stress on immature feet and legs before children are capable of walking naturally. More importantly, walkers probably rob the child of the opportunity to practice more important activity such as crawling and pulling up to stand. Infants need practice time in order to master emerging abilities such as crawling. Any restrictive device which prevents a child from engaging in these important activities has the potential to interfere with the child's natural development.

Introducing Toys

When introducing a new toy or material, first allow the child a chance to explore the toy thoroughly without adult assistance. Let the child discover as many possibilities for play as he can. Once the child has had numerous opportunities for manipulating the toy and once the child has lost his initial interest in the toy, then get involved. Help the child find new play possibilities in the toy. If you show genuine interest in what the child is doing, he will become more involved and more interested himself.

Take inventory of all available toys and materials. Then divide all toys into two groups (or three groups if you have an abundant supply). Be sure there is a balance and variety of toys in each group. Include in each group toys which have elements of novelty, complexity, surprise and change. Arrange the first group of toys in the child's environment so that they are within easy reach of the child. Display them in the crib, on the floor, on shelves, and in containers, so that the child has many choices and alternatives to choose from in his daily explorations. Put the second and third groups in storage. At the end of a one week or two week period, depending on how involved the child has been with the toys, remove the first group of toys and store them. Arrange the second group of toys as you did the first, and watch the child's surprise and amusement. Continue to alternate groups of toys so that the child gets a different group at least every two weeks. When you introduce the first group for the second time, the child will think they are new toys.

Be sure to check toys and materials often to make sure they are appropriate for the child's development. Change the toys to meet the changing abilities and interests of the child. Keep some toys constant. Young children need to have certain love objects or "loveys" such as

teddy bears around all the time. So be sure the child's favorites are always out and always available.

Children need opportunities to play alone and opportunities to play with caregivers. Try to play with the child when he shows he wants to play with you rather than only at times which are convenient for you. Introduce play with toys when the child is content, alert, and shows an interest in play. Watch the child's activity and follow his lead. Try not to frustrate him by making him do things he isn't ready to do even if you think they are important. Encourage the child to persist at a difficult task without frustrating him. Children will often become mildly frustrated with a toy or task. Give the child a chance to solve his own problems first. If he shows signs of frustration or lack of interest such as averting his eyes, looking away, moving away, fussing, becoming angry or crying, however, then discontinue play and find something he wants to do.

If a child becomes highly involved in a task, try not to interfere and break his concentration. Enter into the play only if he seeks your assistance or asks a question. Some of the most valuable teaching and learning experiences occur when the child initiates a question and caregiver is there to provide information and assistance, and to act as a resource to the child. Learning is more meaningful to the child when it stems from his interest. Young children get turned off easily when adults try to impose activities on them solely because the adults think the children should try them. Children benefit from caregivers who provide an interesting environment, follow the child's lead, and become resources to the child's learning.

Storing Materials

Toys and materials need to be within easy reach of the child. When you display materials on child-size book shelves and storage shelves the child can see them and select the ones he wants easily. Plastic washtubs, buckets, vegetable bins, large ice cream containers, and shoe boxes make excellent containers for manipulatives such as large plastic snap beads, lock blocks, toy collections, and plastic links. A handy idea for a storage system is to construct a low shelf, such as a 6',2"x8" board propped up on large blocks or attached to the wall, and put toys on top and storage bins underneath.

If you provide the child with a child-size coat rack or pegs for hanging things at the child's level, you'll give him the opportunity to learn about putting things away and hanging things up. If you give him a child-size hat rack adorned with a variety of hats and caps he'll be able to dress up and role play.

Toys and materials should be organized in a consistent way so that each toy has its own special place. You can designate where blocks are to be stored on a shelf by taping the outline of each kind of block on the shelf. Then putting the blocks away becomes a game much like finishing a picture puzzle. Block accessories should be stored near the blocks. Vehicles can be kept on one shelf, puzzles on another, and pull toys on another. A consistent system for storing the materials makes play time more efficient and encourages independent behavior.

Child-size shelves are better for storing materials than toy boxes. Toys tend to get forgotten, broken, and lost in toy boxes. Broken toys can make a toy box a dangerous place for a child trying to find a missing toy. In addition, the falling lid of a toy box can be dangerous and even fatal. Many adults like toy boxes because the toys are kept out of sight and the room has a neat

appearance. But toy boxes can interfere with a child's play and become a frustrating experience. Children who can see their toys have more opportunities for selecting the ones they want, and in the long run will learn to take better care of their toys and to put them away when finished playing.

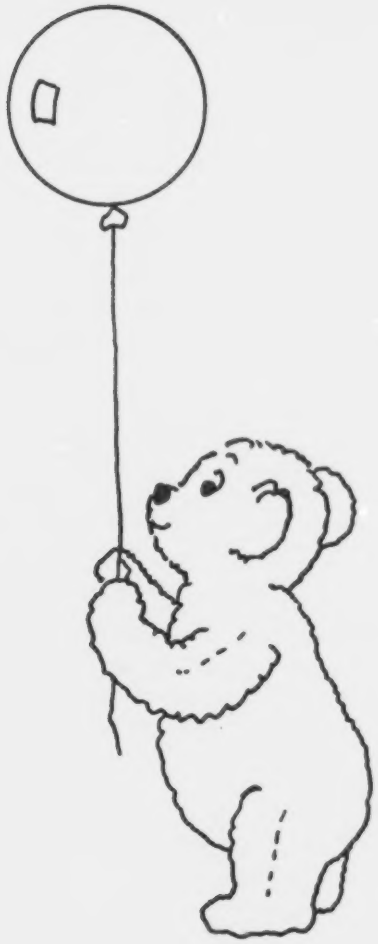
Invitations

The following chapters of invitations to look, listen, touch, communicate, move, and discover and solve problems offer many activities the caregiver can use to help foster and promote the child's emerging abilities. The caregiver should supervise all activities carefully and make adjustments to meet the specific needs of an individual child. When a child loses interest, discontinue the activity and reintroduce it at a later time.

The activities are chronologically sequenced from birth through twenty-four months. *The age levels indicated are only general guidelines.* Each child has his own individual rate of development which will differ from other children's. For example, it is unreasonable to expect a six-month-old infant to be able to do or to be interested in doing *all* the activities given for that age level. Individual adjustments must be made for each child.

You will probably want to start with the activities intended for the younger ages and continue these as you add new activities. Then as your child's development progresses, you'll want to discontinue the activities he outgrows. Some of the activities, however, you will want to continue throughout the twenty-four month period. You may even want to keep a written record of your child's responses to each activity. The interactions you and your child will enjoy while doing the activities should be both educational and fun.

Chapter 3
Invitations to Look and Listen



Introduction

Newborn babies can see and hear and thus take in information about the world by looking and listening. Shortly after birth, many babies can follow a slowly moving object visually and will respond to sound by looking in the direction of its origin. Newborn babies are startled easily by loud sounds and bright lights.

During the first few months of life, infants can see best objects which are between six and fifteen inches in front of their eyes. This distance is about equal to that between the baby's face and the mother's face during breastfeeding or bottle feeding. Therefore, when the caregiver holds the baby during a feeding, she has an excellent opportunity for close eye-to-eye contact which helps the two of them get acquainted. Similarly, if you want an infant to look at an object, it is best to hold the object six to fifteen inches in front of baby's eyes. If you hold it any closer or farther from him the object will appear out of focus to him.

During the early months, it is common for baby's eyes to cross or drift apart occasionally. As his first year progresses, however, baby's vision improves as the eye muscles strengthen and the eyes become more coordinated. His ability to focus on distant objects improves greatly. Some research also indicates that babies develop depth perception very early. By the end of the first year, babies probably see much as adults do.

Babies may stare wide-eyed at faces or interesting objects for long periods of time. Babies spend much of their alert time staring at objects and listening for sounds. Babies who have interesting things to see and hear will be much more interested in learning about the world than babies who don't. Babies reared in uninteresting environments lacking visual and auditory stimulation will lag behind in their development.

Looking and Listening Preferences

During the first few months, babies tend to prefer to look to their right sides. You'll want to hang mobiles and other visual displays at the baby's right side for a while, then at the baby's left side to encourage exploration from both sides. It will be difficult for a young baby to see objects displayed at the midline or in the middle of baby's field of vision. Later, when baby begins to move his head to the midline, you can display objects in the midline position. The key is to encourage baby to explore visually from a variety of positions.

Babies like looking at their mothers' faces best. They are highly attracted to human faces and will spend much time looking at facial features such as eyes, nose, and hair line. Babies prefer three-dimensional faces best, then photographs of faces, then drawings of faces. They are captivated by their own images reflected in a mirror. It takes a long time and repeated encounters with mirrors before baby realizes he is looking at himself. Babies typically do not recognize themselves in a mirror until toward the end of the first year.

Research on infant vision indicates that infants prefer looking at patterns to solid colors. Infants are especially attracted to the contrasts in patterns. They will stare a long time at angles and areas of contrast between a dark line and a light background. Infants have shown preferences for patterns such as a bull's-eye target, checkerboard, and other geometric designs.

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Infant color preferences are similar to adult color preferences. Infants tend to prefer to look at strong, bright colors such as a good red, blue, or green. Many parents are rethinking the use of the traditional pink and blue pastel and are opting for brighter, bolder colors in baby's room.

Babies begin to prefer looking at their hands sometime between the second and third month. They become fascinated watching their own fingers move. Between three and four months, most babies will bring their hands to the midline of their bodies and explore one hand with the other. Eye-hand regard is thought to be linked with increasing ability to use eyes and hands together in the exploration of objects. Eye-hand regard is a very important developmental landmark which will later lead to problem-solving behavior.

Around six months of age, babies begin to notice their feet. They will stare at their feet and toes as they move across the field of vision. This leads to grabbing the feet, exploring them with the hand, and bringing them to the mouth. Eventually, after repeatedly chewing on the toes, baby learns they are attached and a part of his body.

Just as babies prefer to look at mother's face, their favorite sound to hear is mother's voice. This is because infants prefer to listen to high-pitched frequencies, such as a female voice. Parents of both sexes respond to this preference by talking to babies with a high-pitched, exaggerated tone which babies love. Babies listen in a special way to human speech by moving their arms and legs in rhythm to the speaker.

During the early months, a baby will try to look in the direction of a sound. Later, baby will try to locate a sound by moving his head in the direction of the sound. Babies like to hear talking, singing and whispering. They also enjoy listening to music, poetry and nursery rhymes. Babies prefer soothing, pleasant sounds. At about four months of age they can tell the difference between an angry voice and a happy voice. They will respond to an angry voice by pouting or crying and to a happy voice by smiling and cooing. Toward the end of the first year, they develop the concept that words have meaning and will respond to simple verbal commands.

Role of the Caregiver

According to recent research on brain lateralization (Brooks and Obrzut, 1981), an optimal environment for infant brain development would include opportunities for both the right and left sides of the brain to function. Such an environment would provide a great variety of activities which encourage visual and auditory exploration. Language-related activities such as talking and singing to baby and reading nursery rhymes encourage development of the left side of the brain. Visual-spatial materials, such as mobiles, visual displays, music, play dough, nesting and stacking toys, and finger paint tend to encourage development of the the right side of the brain. Babies need a wide variety of both kinds of experiences and should be exposed to a balance of each.

Caregivers can provide a variety of visual experiences by using wall and ceiling displays, posters, and toys which provide color and contrast. And, as we've discussed previously, babies need to see the world from a variety of visual perspectives. Changing the child's visual field regularly by moving baby from one position to another will give him a variety of visual points of view. Young babies are more visually alert when they are held in an upright position, such as looking over the caregiver's shoulder. Babies also benefit by spending time on their stomachs

and holding up their heads to see interesting sights and from being placed in infant seats to watch the caregiver perform household chores. Each change of position gives them a different look at things.

Babies need great variety in their auditory experiences as well. In addition to hearing spoken language, children enjoy listening to a variety of environmental sounds such as ticking clocks, noises from appliances, music boxes, records, tape recordings, and nature sounds. The key is not to bombard baby with a great confusion of auditory stimulation, but rather to help baby to make sense out of the sounds he is hearing by talking to him about them and helping him make cause-effect connections. For example, at bath time a baby will learn to associate the sound of water running with the sensory pleasure of feeling the water on the skin and taking a bath. The caregiver can talk to baby about these events as they are occurring so that baby will be better able to make sense of the sounds and events in his life.

The Invitations

Activities for Infants from Birth to 3 Months

During this period, baby learns about the world by looking and listening. Every sight and sound is new to baby. Babies who have interesting things to look at and listen to will become much more actively involved in learning about objects and how things work than babies who don't.

Emerging ability:

focusing on the caregiver's face and other objects

Caregiver role:

maintaining regular eye contact with baby and showing the baby interesting things to look at

Invitations:

1. Since baby prefers to look most at the caregiver's face, and since baby sees best what is between six to fifteen inches in front of his eyes, caregiver can encourage eye contact with baby during feeding and diapering. Don't be surprised if baby looks away occasionally. Averting the eyes is baby's way of resting from too much stimulation. Talking to baby and changing facial expressions will help keep the eye to eye contact going.

2. Hold baby on your lap and hold up interesting objects for him to look at such as a toy with facial features. Baby will be attracted to the eyes and the contrast of the features against the background.

Hold up a colorful rattle, teether, clackers, stuffed animal, patterned cup, or any object which is brightly colored and has a simple pattern.

3. Put objects in the corners and around the sides of the crib so that no matter what position baby is in, he will have something interesting to look at. Be sure that the objects contain the following elements:

(a) bright, clear colors such as red, blue, or green

(b) simple designs which provide a lot of contrast, such as a bull's-eye target design; vertical and horizontal line patterns where the lines are at least ⅛" apart; and geometric shapes such as circles, squares, triangles, and diamonds.

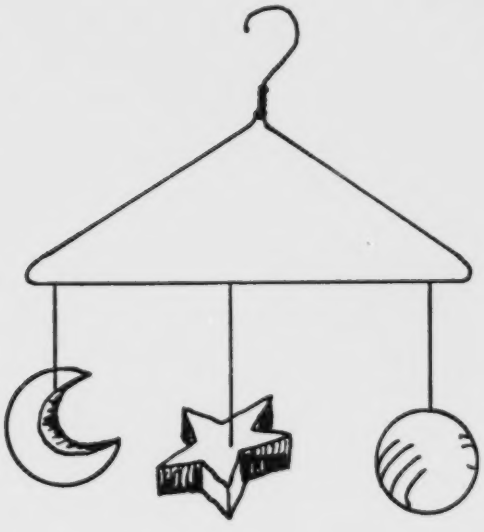
(c) objects and pictures which have simple and large facial features such as stuffed animals; teddy bears; dolls; puppets; photographs of faces; line drawings; and paintings.

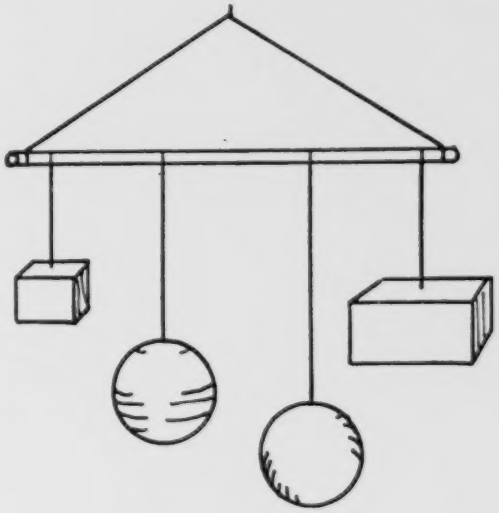
(d) a nonbreakable crib mirror which gives a clear, undistorted image.

★ Be sure the objects are safe and do not hinder baby's movements.

4. Attach a crib mobile to the side of the crib or to a wall, or suspend it from the ceiling. The best crib mobiles are homemade ones designed from the baby's point of view. Most commercially produced mobiles are made to be attractive to adults but are in fact dull to babies. Often baby sees only the edges of the suspended parts of the mobile. To make a simple mobile, cut shapes from different colored construction paper and suspend the shapes with thread from a horizontal soda straw. Run a string or piece of yarn through the soda straw for hanging from a plant hanger or hook. Be sure to attach each shape so that baby will see the shape and not just its edges.

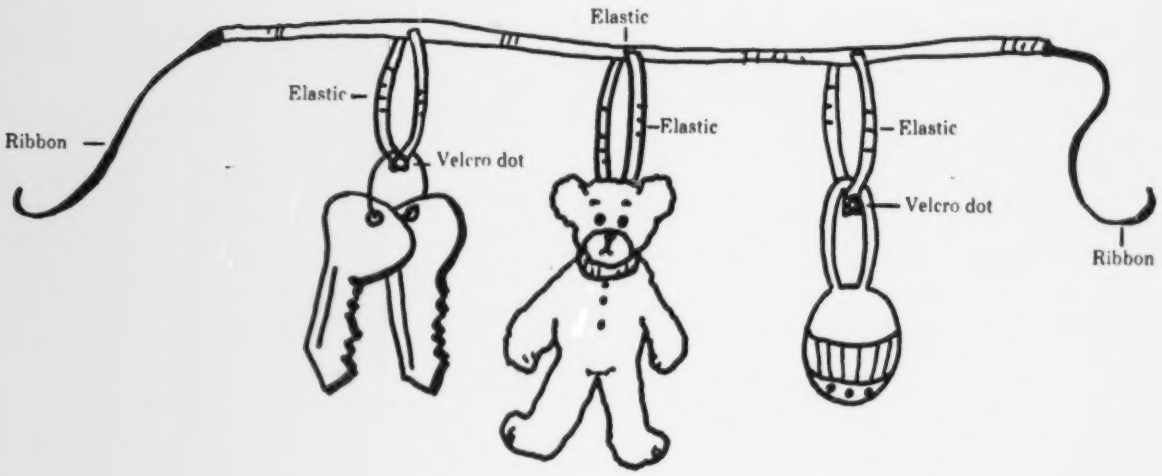
It's best to hang a mobile to one side so that baby can see it better. From time to time rotate it to the other side.





5. Suspend a crib device across the crib for dangling interesting objects. A simple crib device can be made with a 1" wide elastic band 20" long. Sew ribbons on each end to use to tie the device to sides of the crib. Sew three ½"wide elastic strips in regular intervals along the band. Sew velcro circles to the ends of each strip so that each strip can be fastened together making a loop from which you can suspend a toy.

Begin by dangling one toy for a week or more. Then add a second toy, then a third one. Be sure baby can see the toys whether he is lying on his stomach or back. Eventually baby will reach out and bat the toys.



When baby goes shopping in a stroller, you can tie the device across the stroller so that baby will have something to play with.

★ This device should be supervised at all times. Be sure to remove the crib device when baby is able to sit up in the crib so he doesn't get tangled in the bands.

6. Provide large, colorful wall and ceiling displays which contain interesting contrasts, patterns, and designs. Decorate the walls with colorful posters to amuse and stimulate your baby. Three-dimensional wall displays, such as colorful wooden characters placed at baby's eye level, will also hold baby's interest.

★ When suspending objects from the ceiling, be sure they don't dangle over the crib. They should be placed so they can be *seen* from the crib but if you hang them directly overhead they could fall into the crib should they happen to fall.

Emerging ability:
following a moving object with the eyes

Caregiver role:
slowly moving an object horizontally and slowly moving an object vertically across baby's field of vision

Invitations:

1. Flutter your fingers at a distance of about twelve inches in front of baby's eyes until baby focuses on your fingers. Then move your fingers very slowly horizontally across baby's field of vision. Stop the movement if you lose baby's eyes. Then begin again when baby refocuses on your fingers.

MODIFICATIONS:

(a) Begin at the left side and move to the right.

(b) Begin at the right and move to the left.

(c) Move an object such as a rattle across baby's visual field. The sound of the rattle will help to keep baby's attention.

(d) Toward the end of this period (3-4 months), begin with the object at the midline or middle of baby's field of vision then move slowly to either side.

2. Begin this activity with baby lying on his back. Sit behind baby's head so baby cannot see you. Then hold an object or rattle overhead and slowly move it vertically down baby's field of vision to baby's chin. Then reverse the direction.

NOTE: Activities 1(d) and 2 will help strengthen baby's eye muscles and facilitate eye coordination.

3. Move a bell slowly across baby's field of vision, first horizontally, then vertically. If baby has trouble following the bell with his eyes, softly ring the bell as you move it.

Emerging ability:
following a moving object with eyes and head working together

Caregiver role:
slowly moving an object horizontally and slowly moving an object vertically across baby's field of vision

Invitations:

1. Tie a string onto a four-or five-inch embroidery hoop or any other kind of hoop. Dangle the hoop to baby's left and slowly move it from baby's left side to baby's midline then to his right side. Then reverse the direction. Baby should turn his head to follow the hoop by the end of this period (at about three to four months).

2. Have baby lie on his back and sit behind his head, out of sight. Move an object or hoop suspended on a string slowly and vertically down baby's field of vision. Then reverse directions. See how far back baby will stretch his head to follow the object.

3. Place baby on his stomach. Hold or dangle an object in front of baby's eyes and move it slowly across baby's field of vision.

Then continue to move the object higher and higher encouraging baby to lift his head to a 45° then to a 90° angle from the crib. See how high baby can raise his head from the mattress.

4. See if baby will folllow the movement of his mobile.

5. Hold baby in your lap or put baby on his stomach. Encourage baby to look at fish in a fish bowl or aquarium. See if baby will follow the fish movements.

Emerging ability:
looking at fingers and hands

Caregiver role:
encouraging hand regard

Invitations:

1. Flutter your fingers in front of baby's eyes. Then extend baby's arm and play with baby's fingers while he watches.

2. Loosely tie a piece of yarn around baby's wrist for a short time. See if baby notices the yarn. Then tie it around the other wrist.

3. Put a band of fabric such as a small elastic sweat band around baby's palm for a short time. Then put it around the other hand.

4. Tape a colorful bow to the back of baby's hand for a short time. Then put it on the other hand.

5. Place baby on his stomach on top of a brightly colored quilt which has many small patterns and designs. As he reaches for the patterns, baby will begin to notice his hands.

6. Sew pieces of yarn to a quilt so that baby can pull at them when lying on his stomach. Baby will notice his hands.

7. Offer objects to baby so he will have to extend an arm to reach them. Baby will notice his fingers and hand as he reaches.

8. Place objects a little bit out of baby's reach so that he will notice his hands when reaching for them.

Emerging ability:
attending to the caregiver's voice and other sounds

Caregiver role:
talking, singing, whispering, and making other sounds

Invitations:

1. Babies prefer to listen to their mothers' voices or a high-pitched voice better than any

other sound. Talk often to the baby in soft, soothing, pleasant tones. See if baby will respond to your voice.

2. Stand behind baby and say, "Can you find me, Clint? Here I am!" See whether baby will turn his head in your direction.

3. Whisper "I love you" in baby's right ear, then in baby's left ear. See how baby responds.

4. Shake a rattle and see if baby notices by looking up or changing expression.

Emerging ability:
turning the head to locate a sound

Caregiver role:
making sounds on each side, in front, and behind baby

Invitations:

1. Hold a rattle or bell behind baby and make a sound. See whether baby will turn his head to locate the sound.

2. Ring a bell softly at baby's right side and see whether baby will turn his head to locate the sound. Then ring the bell at baby's left side. Be sure baby does not see your movements. Seeing movement, rather than hearing the sound, may cause him to turn.

3. Stand across the room and make a noise. See whether baby will look or turn his head in your direction.

4. Play a music box and see whether baby turns his head to locate the music.

Activities for Infants from 3 to 6 Months

Emerging ability:
focusing on visual displays

Caregiver role:
providing wall and ceiling visual displays

Invitations:

1. Draw a large 8"x10" human face with simple features or cut out a large pleasant face from a magazine and paste it onto a large cardboard sheet. Attach the face to the headboard or footboard of the crib with a piece of masking tape. You may want to attach the face to a crib bar by attaching a shoe string to the back of the cardboard with a strong piece of tape, and then tying the shoelace to a crib bar. Be sure to put the face in a position where baby can see it.

A variation of the face is to sew yarn facial features on a piece of fabric. Then stretch the fabric to fit into a large 8" to 10" embroidery hoop. You can also use this face to play peek-a-boo games.

2. Draw a large bull's-eye target on a piece of 8" by 10" white posterboard. Use bright colors for each ring. Attach the design to baby's crib as described in activity 1.

3. Draw a red and white checkerboard pattern on an 8" by 10" piece of white posterboard. Attach the checkerboard to baby's crib as described in activity 1.

4. Draw a bright green and white spiral design or other geometric design on an 8" by 10" piece of white posterboard. Attach the design to baby's crib as described in activity 1.

5. Collect brightly colored posters with simple pictures showing animal scenes or children playing. You can find posters at fairs, exhibits, forestry service, circuses, and many other places. Just be on the lookout for them. Display the posters on the wall or ceiling where baby can see them easily.

6. Use a three-foot-long strip of sturdy fabric such as burlap. Sew plastic rings on each end. Either sew, pin, or use velcro to attach lightweight stuffed animals or cloth dolls to the fabric. Attach it to the wall to provide baby a three-dimensional display.

7. Suspend interesting lightweight objects from a plant hook attached to the ceiling.

★ Take care that they hang where baby can see them easily but NOT directly over the crib.

8. On a large piece of colored posterboard (2' by 3') paste a variety of objects and fabrics to create an interesting three-dimensional effect. Use such things as yarn, denim, fur, corduroy, a Mylar or aluminum foil pie tin, sponges, cotton, cellophane, ribbons, colored plastic, etc. Attach the display to the wall within baby's visual range.

Emerging ability:
using eyes and hands together

Caregiver role:
providing opportunities for eye and hand activities

Invitations:

1. Fold several colorful ribbons or fabric strips in half and tie another ribbon around them at the center fold. Tie this ribbon onto the crib device described for use during the birth to three-month period (see page 27). Suspend the crib device across the crib. Baby will reach for and manipulate the ribbons and thus will begin to use his eyes and hands together.

2. Prop baby in a sitting position. Give baby a safe, colorful teether which has a variety of different textured protrusions for sucking. Baby will use his eyes, hands, and mouth to explore this object.

3. While baby is sitting in an infant seat or swing, tie an interesting toy or object to the swing within reach of baby's grasp.

Emerging ability:
following the actions of others with the eyes

Caregiver role:
encouraging baby to follow your movements

Invitations:

1. As you enter or leave baby's sight, talk to baby or make interesting sounds so baby will watch your movements.

2. While baby is sitting in an infant seat or swing, crouch down on the floor in front of baby. Slowly rise to a standing position, then crouch down again, while saying, "I go up! I come down!"

3. Place baby in an infant seat so he can watch you doing chores such as preparing a meal, folding clothes, or dusting the furniture.

4. During this period, baby will be fascinated by watching the play of small children. Provide supervised opportunities for baby to watch small children batting a balloon, playing ball, dancing or running around.

5. Prop baby in a sitting position or better yet have someone hold baby between his or her legs while sitting on the floor. Play a game of rolling a brightly colored ball to baby. Try to use a ball which creates an interesting visual effect such as a ball with a bull's-eye pattern or a transparent ball with things that move and bounce around inside.

6. Have baby watch you bang, swing, push and roll his rattles and toys.

Emerging ability:
listening to everyday sounds

Caregiver role:
encouraging baby to tune in to special sounds

Invitations:

1. While baby is waiting to be fed, play a tune on baby's crib mobile or music box.

2. Encourage baby to listen to the running water while preparing baby's bath. Help baby use his hand to make splashing noises in the water as it goes down the drain.

3. Hold baby up to watch a pendulum clock and listen to the ticking.

4. Have baby with you as you do chores so that baby will hear typical sounds of the day such as foods cooking or vacuum cleaner noises.

5. Encourage baby to tune in to nature sounds such as the wind blowing, rain splattering, leaves rustling, bees humming and birds chirping.

6. Play soothing musical recordings for baby's enjoyment.

Activities for Infants from 6 to 9 Months

Emerging ability:
looking while moving through space

Caregiver role:
providing interesting things to see for a baby on the move

Invitations:

1. Support baby on his stomach and carry him from one room to another, pointing out interesting things along the way such as pictures, the washing machine, a bureau display, etc. Alternate the stomach position with carrying baby in an upright, vertical position.

2. Tie interesting objects to chair and table legs so that baby will discover them while crawling from one place to another. For example, tie a set of plastic measuring cups to the leg of a kitchen chair so that baby can reach them and play with them during a crawling journey in the kitchen.

3. Go through the house on your hands and knees so that you will see what baby sees from his position. Add interesting objects and visual displays at baby's eye level. For example, lower posters and pictures close to the floor so that baby can see them while crawling around.

4. Put up a nonbreakable full-length mirror in a horizontal position close to the floor so that baby will crawl to it and see his reflection.

Emerging ability:
repeating actions to see familiar sights and to create new ones

Caregiver role:
providing opportunities for baby to create his own visual effects

Invitations:

1. Either paste or sew a light cloth covering to the face described in the three-to-six-month period (See page 30). Baby will lift and drop the cloth over and over again to make the face appear and disappear.

2. Tie an interesting rattle or toy to baby's highchair with a long string which doesn't quite reach the ground. Baby will throw the rattle over the side and pull it back up.

3. Attach a favorite photograph or picture to a long elastic strip which has a large plastic ring on the end. Attach the elastic strip to the crib or wall so that baby cannot see the picture but can see the plastic ring. Baby will pull the ring to see the picture.

★ Be sure the picture, elastic, and ring are sturdy and securely attached to each other. The ring should be large enough for baby's hand but no larger. Baby should not be able to put his head in the ring.

4. Provide a variety of toys which change the way they look and sound when manipulated, such as: unbreakable mirrors, balls of any kind but especially flutter balls, cloth blocks made of a variety of textures with built-in noise makers, squeeze toys, and transparent rattles with objects on the inside.

Emerging ability:
associating certain sounds with certain locations

Caregiver role:
pointing out the special sounds of each room or activity

Invitations:

1. While in each room with baby, talk about and listen to a sound which is special to that room. Examples are:

(a) bathroom - running water
(b) bedroom - alarm clock
(c) family room - record player
(d) kitchen - electric mixer
(e) entrance way - door bell
(f) study - ringing telephone
(g) patio - wind chime
(h) baby's room - musical mobile

2. Place a bell, a music box and a noisy squeeze toy on the floor in three different locations in the room not far from baby. Ring the bell and see if baby will crawl to the bell. Then play the music box. Then squeeze the toy. See if baby will come to the different sounds.

3. Tie a bell securely to a table leg, tie a wind chime or noise mobile to a chair leg in another part of the room, and put a noisy rattle in another part of the room. See if baby will discover the noises as he moves around the room.

Activities for Infants 9 to 12 Months

Emerging ability:
recognizing familiar things in pictures

Caregiver role:
showing pictures of familiar objects

Invitations:

1. Begin to look at books with baby. Use books which have one large, simple picture per page of an object familiar to baby. The most practical books are made of cloth, vinyl and sturdy cardboard. Baby will like a variety of books. As you and baby look at books, point to the objects pictured and tell baby their names. Don't be surprised if baby becomes restless after a minute or two.

2. Make books for baby. Put large photographs of family members inside plastic lock bags. Punch holes along the outside edge so that you can tie the pages together. Baby will enjoy looking at family members and pets.

3. Cut large, simple, colorful pictures of objects familiar to baby from magazines such as a baby, ball, cup, bottle, shoe, rattle, and teddy bear. Paste the pictures onto cardboard pages. Punch holes along the outside edges so that you can tie the pages together. Hold baby on your lap and name each object as you look at it together.

Emerging ability:
standing to look

Caregiver role:
providing many interesting things to look at placed at baby's eye level while standing

Invitations:

1. Place posters and other visual displays at baby's eye level when standing up in the crib.

2. Put a stuffed animal or other interesting toy on a sofa so that baby will see it when he pulls to a standing position.

3. Attach a poster or picture to the front of a sturdy, well padded chair so that baby will see it when he pulls to stand.

4. Place posters or pictures on kitchen cabinets or refrigerator so that baby will see them when he pulls to stand.

Emerging ability:
responding to sounds

Caregiver role:
introducing baby to sounds, names and musical activities

Invitations:

1. Sing a simple song such as "Pop Goes the Weasel" or "Old MacDonald's Farm" and see if baby will "sing" along. Don't expect baby to sing the words, but encourage baby to vocalize or imitate animal noises.

2. Refer to baby by name and see whether baby responds by vocalizing or by changing expression.

3. Refer to other people in the room and see if baby will look in their direction. For instance, see if he responds when you say, "Where is Daddy?".

4. Play musical records, tapes, or the radio. Dance with baby around the room. Encourage baby to move to the music.

Activities for Toddlers from 12 to 18 Months

Emerging ability:
looking at and listening to complex things

Caregiver role:
encouraging toddler to notice details

Invitations:

1. Take toddler for a nature walk outside. Give toddler a leaf to look at and describe its color, shape and texture. Then do the same for grass, flowers, trees, bugs, and pets.

2. While outdoors, point to the sky and talk about the clouds, the sun, the moon, and airplanes.

3. While outdoors, show toddler a worm, ant, bug, or bird and with toddler, follow its movements. Describe what it is doing.

4. While outdoors, direct toddler's attention to environmental sounds such as cars, motorcycles, airplanes, horns, bicycles, barking dogs, lawn mowers, chirping birds, children playing, etc. Describe each noise to toddler.

5. Look at books which have two or three pictures on a page, such as a page showing articles of clothing. Point out details such as color, size, shape, and function.

Emerging ability:
looking at and listening to novel situations

Caregiver role:
introducing toddler to novel situations

Invitations:

1. Take a toddler somewhere he has never been before such as a farm, shopping center, florist shop, circus, fair, dairy, or park. Describe all the new sights and sounds.

2. Take toddler to a band concert, band practice, or a parade so that he can listen to live instruments.

3. Take toddler to watch a train pass by and discuss what is happening. See if toddler will imitate the train whistle.

4. Take toddler to see someone off at a bus depot or airport. Discuss the sights and sounds you encounter.

5. Take toddler to a zoo. Talk about the animals and imitate the noises they make.

Activities for Toddlers from 18 to 24 Months

Emerging ability:
looking at and listening to others

Caregiver role:
providing opportunities for toddler to be with others who are younger and older than toddler

Invitations:

1. Supervise a play activity with toddler and a younger child. Provide ample toys for both children. Don't expect toddler to share his favorite toy as this would be like someone asking you to give up your most treasured object. To start, keep playtime very short. If toddler is reluctant to play, get down on the floor and play along.

2. Supervise a play activity with toddler and an older child. See if toddler begins to imitate certain actions of the other child.

3. Take toddler to a park where other children will be playing. Let toddler watch the other child and gradually join in the play if he wants.

4. Take toddler to a library program which offers a story time or puppet show for toddlers.

5. Join or begin a play group so that toddler will be able to play with the same children several times a week.

Emerging ability:
looking and listening for fun

Caregiver role:
providing many open-ended activities and materials

Invitations:

1. Provide a small tub of water in which toddler can float and sink a collection of objects such as a cork, sponge, rubber ball, styrofoam, rocks, wood, leaves, plastic containers, etc.

★ Be sure to supervise this activity closely.

2. Provide a small tub in which toddler can mix sand and water together to see and hear the effects.

★ Be sure to use washed sand. Stress to toddler that sand is for feeling and holding but it doesn't go in the mouth.

3. Let toddler finger paint on an old T.V. tray. Talk about the visual effects toddler creates and the sound the finger paint makes as it "squishes" through toddler's fingers.

4. Give paper and nontoxic markers to toddler for experimenting.

5. Take toddler to a museum. Discuss the pictures and art objects.

6. Give toddler some playdough for manipulating, pounding, rolling, and tearing. Below is a recipe for homemade playdough which can be stored for several months in plastic bags, air tight tins, or in the refrigerator.

4 cups flour
2 cups salt
8 teaspoons cream of tartar
food coloring
2¼ cup vegetable oil
4 cups water

Mix the dry ingredients. Add food coloring to the oil and water then add to the dry ingredients. Cook over a medium heat until the mixture pulls away from the pan. Cool and knead.

Chapter 4
Invitations To Touch

Introduction

As adults we are so tuned into visual and auditory experiences that we sometimes forget how important a sense of touch is to a young child. Children learn a great deal through touching. They learn to tell where they end and others begin through touching. Touching is an important part of the infant-caregiver bonding process. Babies learn trust and learn to develop a sense of being cared for through being touched by and touching the caregiver in various ways. The first time a baby reaches out it is generally to touch the caregiver's hand or face. Caregivers express affection to babies–and vice versa–by touching, caressing, patting, massaging, and stroking. Alice Honig, a child development expert, emphasizes the importance of the caregiver's body to the baby's need for contact comfort. The toddler will often seek a caregiver's lap for brief periods of reassurance and physical comfort through touching and being close. Even Harlow's research done with monkeys indicated that in times of distress baby monkeys will run to a cloth mother substitute rather than to a wire mother substitute, even when nourishment is available only from the wire mother. Harlow's work describes the instinctive need for contact comfort which the baby receives from touching and nestling against the mother's body.

Young children learn a great deal about the world through touching objects. They learn about the concepts of rough, smooth, hard, soft, heavy and light. They learn about the size and shape of objects through touching. They learn through touch which objects are good for mouthing, patting, shaking, rubbing, crumpling, and banging. Children benefit from touching a variety of objects of various sizes, shapes, weights, and textures. Babies enjoy chewing on teethers which have a variety of textures and shapes. Toddlers enjoy toys made from a variety of fabrics, such as cloth books and texture books. When choosing toys for children, look for toys made from a variety of materials which invite the child to touch. Try to provide a balance so that the child will become familiar with toys made from wood, metal, and fabrics as well as plastic.

The Invitations

Although age levels are given, most of the following activities can be done throughout the first two years.

Activities for Infants from Birth to 3 Months

Emerging ability:
develop trust through touching and being touched

Caregiver role:
providing a sense of being cared for through touching

Invitations:

1. Provide warm, secure arms for baby and hold him often.

2. When carrying baby, provide much support, hold him close to you, and move him in a slow, nonjerky, secure manner.

3. When lifting baby, put your hand behind his neck and head for support and lift him slowly to prevent startling him.

4. While holding baby on your lap, gently touch his head, cheeks, arms, legs, fingers, and toes.

5. Gently hold baby's hand and rub it against your cheek.

6. Make bath time a pleasant, sensory experience by bathing baby when he is happy and not hungry or sleepy. Gently rub baby with your hand or a soft wash cloth. Encourage baby to play with the water by patting the water with his hand.

7. After baby's bath, give baby a gentle massage. Use some lotion on your hands and gently rub baby's back, shoulders, legs, feet, toes, arms, hands, and fingers. If you do this slowly and gently, baby should relax his muscles and become soothed and content. Repeat this activity often.

8. Touch baby's cheek to get a smile.

Emerging ability:
feeling the difference between self and objects

Caregiver role:
encouraging baby to touch objects

Invitations:

1. Rub the back of baby's hand and put an object such as a rattle in baby's palm.

2. Help baby learn where his body begins and ends by touching his body often in various places while naming his body parts.

3. While holding baby on your lap, rub his fingers one at a time. Then do the same with his toes. Then rub his fingers and toes with a round smooth rattle. Touch baby with a variety of objects and provide many opportunities for baby to touch a variety of objects.

4. Hold baby on your lap and gently grasp his hand. Rub his hand on the flat surface of a vinyl baby's book. Then rub his hand against his other hand. Repeat this activity replacing the flat vinyl book with a round ball, furry stuffed animal, and wooden block. Then use baby's other hand to do the rubbing so that both hands get into the action.

5. Provide some time during each day, such as right before bath time, when baby can lie in his crib without wearing clothes. Baby will experience the new sensation of having his entire body free to feel the sheet underneath. Be sure he has some time both on his stomach and on his back.

Emerging ability:
learning about shapes by touching and holding

Caregiver role:
encouraging baby to feel objects of different shapes

Invitations:

1. Give baby objects of a variety of shapes so that baby will always have a choice of playing with a round, square, rectangular, or triangular shaped object. Provide objects composed of several parts which invite touching.

2. Give baby a round ball to hold (too large to be swallowed, but small enough to grasp). Then give baby a square block to hold. Then give baby a long, narrow object such as a cardboard toilet paper roll or a rattle with a handle. Then give baby a doughnut shaped toy. Let baby feel the difference by handling each toy.

3. During this age, babies discover their feet and toes. Provide time each day for baby to go without socks and shoes so that baby will have oportunities to use his hands to explore his feet and toes. Don't be surprised when baby begins to put his toes into his mouth for sucking and chewing. Baby will quickly learn that these interesting things which wave in and out of his field of vision are attached to him and can experience feeling too. When baby touches his foot he feels two things: (1) his hand feels an object, (2) his foot feels something touching it. Baby soon learns to connect these two experiences and hence discovers that feet are a part of his body.

Emerging ability:
learning about texture by touching

Caregiver role:
providing objects which have a variety of textures

Invitations:

1. Rub baby's back, stomach, cheeks, arms, and legs with materials of different textures, such as denim, fur, velvet, feathers, satin or silk, flannel, and leather.

2. Give baby texture balls or cloth blocks made from materials with a variety of textures, such as brushed cotton, denim, fake fur, dotted swiss, terrycloth, vinyl, corduroy, and satin.

3. Make a long snake out of material and stuff it with old rags pantyhose, or polyester fill. Make each segment of the snake from a different material, such as nylon, denim, fake fur, flannel, wool, and corduroy.

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4. Paste various textures onto pieces of cardboard 5" x 7". Use squares of shag carpet, sand paper, fake fur, feathers, cork, plywood, sponge, cotton balls, lace, and felt. Let baby explore each texture card. Later punch holes in the cards and string them together with strings to make a texture book.

5. Dress baby in clothes made of a variety of materials, such as flannel, polyester, corduroy, brushed nylon, and denim.

6. Make and wear a caregiver smock adorned with objects of various textures which can be detached. You can make a simple smock from a large bath towel by cutting a hole in the middle for your head. Attach to the smock objects such as rattles, plastic spoons, clackers, yarn balls, and soft rubber or plastic teethers by means of elastic loops. Sew one end of each loop to the smock and attach the other end to it with velcro. Baby will reach for, grasp, and detach the objects while being held by caregiver.

Emerging ability:

learning the difference between hard and soft objects by touching

Caregiver role:

providing objects which are hard and soft

Invitations:

1. Give baby a wooden block or other wooden toy and a yarn ball to play with. Touch baby's hand to the wooden toy and say, "hard." Touch baby's hand to the yarn ball and say, "soft."

2. Let baby feel your hair and clothes and say, "soft."

3. During baby's bath, let baby feel a dry sponge and say, "hard." Then help baby put it in the water and feel the difference. Say, "Now the sponge is soft."

4. Help baby pat a basketball or other hard plastic ball and say, "hard." Then help baby pat a semi-inflated beach ball and say, "soft."

5. Rub a feather or piece of fake fur gently over baby's body and say, "soft." Then touch baby with a hard plastic rattle and say, "hard."

6. Cover baby's bottle with a soft covering such as a cotton or terrycloth sock. Encourage baby to help hold his bottle during a feeding.

Activities for Infants from 6 to 9 Months

Emerging ability:
learning which objects are fun to pat and bang

Caregiver role:
providing opportunities for patting and banging objects

Invitations:

1. Hold baby on your lap and encourage baby to pat the top of a table.

2. During baby's bath, encourage baby to pat and splash the water with his hands and feet.

3. Give baby objects which are fun to bang, such as rattles, hammers, and objects (e.g., empty spools of thread) strung together on a string.

4. Give baby wooden spoons, lids, and pots and pans to bang.

5. ★ Help baby to pat other children and pets—gently and safely.

6. Encourage baby to pat objects of different sizes, shapes, and textures. For example, encourage baby to pat a rug, blanket, wooden block, plastic ball, and stuffed animal.

Emerging ability:
learning the difference between light and heavy objects

Caregiver role:
providing objects of various weights for holding

Invitations:

1. Hand baby a lightweight object to hold, such as a cloth block. Then hand baby a heavier object to hold, such as a wooden block the same size as the cloth block. Watch how baby accommodates his hand to the different weights.

2. Encourage baby to push an inflated roller toy. Then encourage baby to push a heavier basketball.

3. Encourage baby to held his bottle during feeding. He will experience the change in weight from a full, heavy bottle to an empty, light bottle.

4. Put a few lightweight objects, such as three plastic keys, into a refrigerator container with a top. Let baby shake the container. Then put heavier objects, such as wooden cubes, into the container. Let baby shake the container and watch for any accommodation he makes for the extra weight.

5. Attach a feather or yarn ball to the end of a shoe string. Attach a heavier object, such as a hard plastic teether, to the end of another shoe string. Lay the strings out side by side in front of baby. Encourage baby to pull the string with the teether first, then the string with the feather. Baby will feel the difference.

Emerging ability:
learning to squeeze objects

Caregiver role:
providing a variety of objects for squeezing

Invitations:

1. Give baby a variety of soft squeeze toys, such as small stuffed animals, cloth blocks or balls filled with soft polyester material.

2. Let baby squeeze plastic scrub pads designed for scrubbing pots and pans.

★ Be sure to supervise this activity.

3. Wash new sponges thoroughly and cut them into various shapes for baby to squeeze.

4. Supervise baby's squeezing and crumpling of newspapers, pages from phone books, wrapping paper, paper bags, and other paper which crackles when squeezed.

Activities for Infants from 9 to 12 Months

Emerging ability:
touching and holding with thumb and index finger

Caregiver role:
providing opportunities for baby to use thumb and finger together

Invitations:

1. Put baby in his highchair and give him pieces of finger foods which he can grasp with thumb and finger.

2. Provide baby with a busy box which has a light switch that baby can operate with his thumb and finger.

3. Give baby a spoon to practice holding.

4. Sew loops of soft yarn onto squares of fabric. Give the squares to baby so he can play with the loops with his fingers.

Emerging ability:
learning the difference between big and small through touching and holding

Caregiver role:
giving baby big and small objects to hold

Invitations:

1. Play ball with baby by rolling a small ball to him while both of you are sitting on the floor. Then roll him a large ball.

2. Give baby a small doll and a big doll to play with.

3. Give baby a small and a large cardboard box for filling and dumping. See if baby will put the small box inside the larger one.

4. Make a number of large blocks from cardboard tissue boxes and a number of smaller blocks from small milk cartons and set them up side by side. Encourage baby to explore the different blocks.

Activities for Toddlers from 12 to 18 Months

Emerging ability:
learning about inside and outside by touching objects

Caregiver role:
providing objects which have holes for exploring

Invitations:

1. Toddlers love to poke their fingers into holes. Make "feelie holes" by cutting several holes (2" in diameter) into a large piece of 8" x 10" cardboard. On the back of the cardboard, paste 4" squares of fabric of various textures positioned behind the holes so that they form a pocket for toddler to poke his finger into and feel.

2. Cut a hole in the center of each of several pieces of thick cardboard. Paste a piece of textured material to the back of each piece of cardboard for toddler to feel when he pokes his finger into each hole. Examples are:

(a) sandpaper
(b) cotton ball
(c) corduroy square
(d) velvet square
(e) fur square

String the pieces of cardboard together to form a book.

3. Cut a toilet paper roll in half to form two short rolls. Put pieces of fabric into the middle of each roll so that toddler can explore the fabric by putting his fingers inside the rolls.

4. Make small clean baby food jars into "feelie" jars by putting a different object into each jar. For example, fill jars with:

(a) velvet material
(b) playdough
(c) two large wooden beads
(d) pieces of yarn

Cut a hole just large enough for toddler's finger to fit into a circle of fabric. The fabric will be the lid for the jar. Put the fabric over the opening of the jar and tape the fabric to the jar with plastic tape or secure it in place with a rubber band. Hold the jar while toddler explores what's inside with his finger.

Emerging ability:
learning about what is special in each room by touching

Caregiver role
encouraging toddler in his explorations to touch and feel the things which are special to each room of the house

Invitations:

1. In the kitchen, encourage toddler to touch and feel raw vegetables, plastic measuring cups and spoons, wooden spoons, pots and pans, canned foods, vegetable brushes, and plastic cups and bowls.

2. In the living room or den, encourage toddler to touch and feel the sofa, carpet, chairs, wall clock, and books.

3. In the bathroom, encourage toddler to feel the hard, cold tile, bathtub, sink, and running water.

4. In the bedroom, encourage toddler to touch and feel the bedspread, pillows, drapes, and carpet. Let toddler empty underwear or clothing from a low dresser drawer.

5. While outside in the yard, encourage toddler to feel the grass with hands and feet and to touch leaves, bark, flowers, and rocks.

Activities for Toddlers from 18 to 24 Months

Emerging ability:
learning to identify hidden objects through touch

Caregiver role:
encouraging toddler to identify hidden object by feeling them

Invitations:

1. Show toddler three different objects, such as a wooden block, plastic doughnut toy, and plastic horse. Cover the objects with a blanket or towel. Ask toddler to put his hands under the cover and feel the objects without looking. Ask him to give you the horse. Then ask him for the other objects.

2. Put several objects in a paper bag. Have toddler put his hand inside the bag and feel the objects. Name a specific object and ask toddler to give it to you without looking inside the bag.

3. Make "feelie bags" by sewing small objects inside pieces of material. Make feelie bags which have one, two, and three things inside. See if toddler can discover what is inside each bag just by feeling. Include bags with:

(a) beans
(b) wooden beads
(c) wooden block
(d) jingle bells
(e) plastic, crackling packing material

4. Cut a round hole large enough for toddler's hand in the end of a shoe box. Cut the toe out of a sock. Make a sock sleeve by pasting one end of the sock around the hole in the box. Place an object in the box and put the lid on. Help toddler put his hand through the sleeve and into the box to feel what is inside. Ask toddler to feel the object and tell you how it feels.

Emerging ability:

creating interesting effects through touching and holding

Caregiver role:

providing a variety of materials for sense pleasure play

Invitations:

1. Use the garden hose to wet down an area of dirt. Let toddler play in the mud by exploring it with hands and feet.

2. Provide a sandbox or small tub or bucket of clean sand. Pour some water into the sand to make it moist. Let toddler explore the sand with hands and feet.

3. On a driveway, sidewalk, or patio, gather together a tub of water, large rectangular cake pan with liquid tempera paint in the bottom, and a large sheet of butcher paper, wrapping paper, paper bag, or newspaper spread out. Help toddler stand in the paint pan with bare feet. Then help toddler onto the paper and encourage him to paint with his feet. Then rinse his feet in the tub of water.

4. Set toddler at a table or feeding tray. Give him a paper plate. Put a glob of pudding on the plate and let him fingerpaint with the pudding. When he is finished he can safely lick his fingers.

Chapter 5
Invitations To Communicate

Introduction

Communication is the system through which we express feelings, thoughts, needs, and desires to others, both verbally and nonverbally. Communication is reciprocal: messages go from child to caregiver and from caregiver to child. In verbal communication, the message is transmitted through utterances or words. Nonverbal communication includes facial expressions, body posture and gestures.

Infants communicate by means of crying, cooing, babbling, facial and body expressions and gestures. During the first few months of life, infants communicate a great deal through crying. Sensitive caregivers soon learn to distinguish the different types of infant cries and can recognize and differentiate, for example, a hunger cry from a pain cry. Research has shown that mothers who respond promptly to their babies' cries and to their other signals have babies who cry less often and for shorter periods at twelve months of age than babies whose mothers leave them to cry it out. (Bell and Ainsworth, 1972). Infants whose crying is responded to immediately and consistently learn that they are not alone and that there is someone near who cares for them. Infants whose noncrying signals are responded to quickly learn ways of communicating needs without crying. During the first several months of life, infants cry only to communicate needs. Therefore, it's not appropriate to let an infant "cry it out." Leaving an infant alone to cry it out does nothing but exhaust the baby and teach him that the caregiver cannot be trusted to meet his needs adequately and consistently.

Toddlers typically communicate by using jargon, single words, word pairs, phrases, some simple sentences, facial and body expressions, and gestures. Caregivers often find it much easier to communicate with toddlers who have begun to use words to express needs than with infants. Because their vocabularies are still quite limited, toddlers will use single words and word pairs to express meanings beyond the words themselves. For example, a toddler may use the word "cup" to say "Please pour some juice into my cup." Caregivers may also hear toddlers use word pairs such as "baby highchair" to mean "please put me into my highchair." These examples indicate that young children can understand a great deal more than they can express verbally. Therefore it is always a good idea to talk to infants and toddlers—a lot. Even though young children may not understand every word an adult uses, they pick up meanings from intonation and pitch of the adult's voice and from the context in which the word is used. In addition, talking to young children gives them a language model to help them learn the rules of grammar and broadens their vocabulary.

Communication is a two-way street. Caregivers also communicate their feelings verbally and nonverbally to young children. Infants and toddlers are highly sensitive to caregiver moods which are frequently communicated nonverbally through facial expressions, body tension, touch, and handling. An infant can sense a caregiver's attitude by the way the caregiver holds him. An anxious caregiver may communicate tension by holding an infant rigidly and stiffly away from her body and by moving the baby in a jerky fashion. A more relaxed caregiver will cradle the baby closer to her body, and move more slowly, smoothly, and naturally. Such handling will communicate warmth and security to the baby.

Role of the Caregiver

It Is Okay to Talk to Babies

The role of the caregiver in extending invitations to communicate is primarily to provide a rich language environment in which adults and other children talk to infants and toddlers continuously. Some adults find talking to babies very embarrassing especially when done in the presence of other adults. For example, saying "ah, ah, ga, ga, goo" to a baby may seem silly to some adults. If the adult can overcome these inhibitions, however, the baby will benefit greatly by such interactions. Not only is the babbling adult communicating her interest to the infant, she is also providing the stimulus the baby needs to imitate sounds. We all like to be talked to at our own level and infants are no exception! Matching adult language to infant language motivates the child to practice verbalizing and to attempt utterances at a slightly higher level of development.

Young infants prefer to hear the human voice, especially a high pitched voice, more than any other sound. Infants are fascinated by and attentive to an adult who coos, babbles, talks, whispers, or sings. Children exposed to caregivers who talk to them a great deal, play vocal games with them and make them feel that whatever they're doing is interesting are more likely to advance developmentally. Children encouraged by this verbal interaction typically are more verbal themselves, learn early that things have names, and feel more in control of their lives and their ability to make things happen. Babies exposed to one such language program designed by Earladeen Badger (1971) made significant developmental gains. In this program, caregivers were trained to systematically and regularly:

(1) play vocal games with the infant

(2) imitate the infant's cooing sounds (such as "uh uh uh" and "ah ah ah")

(3) wait for infant's vocal response and then imitate it in a game resembling conversation

(4) play "follow the leader" by producing one familiar sound and then shifting to another after the infant has imitated the first sound

(5) introduce new sounds which are not yet a part of the infant's sound collection and encourage the infant to imitate them.

(6) name parts of the infant's body as they are touched during cleaning and care

Caregivers can reinforce toddlers' verbalizations by encouraging them to talk and praising them when they do. As toddlers begin to use words, make a practice of telling them the names of objects, actions, and events in the environment. Toddler will learn that each object has a name and consequently his vocabulary will grow. Playing games which involve words and actions like "Pat-a-Cake," "Ring-Around-the-Rosy," "Pigs to Market," and "Where is Thumbkin?" is an excellent way to encourage toddler's enjoyment of verbalization. Singing songs, doing finger plays, reciting nursery rhymes, and "reading" picture books with the toddler are other good ways to encourage appreciation of words. These latter activities lead to an early interest in books and reading and lay a foundation for an appreciation of literature.

It is unnecessary to correct toddler speech errors. For example, a toddler who is beginning to name things may say "magskasine" for "magazine." Rather than correcting the child and running the risk of discouraging his attempts at naming, the adult might say instead, "Yes, you

have a magazine" or "Would you like to look through the magazine together?" That way the adult models the correct form without rejecting the child's language. It is also unnecessary to correct the toddler's grammar mistakes. Children learn grammar or language structure by listening to adults talk, guessing about the rules of grammar, and then trying out the rules in conversation. For example, in learning to change singular words to plural, the child will learn to add an "s" to the word. A child often runs into trouble when applying the general rule to an exception. For example, it is typical to hear children say "foots," "mouses," and "deers," or use incorrect forms for the past tense such as "goed" for "went" or "dooded" for "did." While these errors may seem humorous to an adult, they appear perfectly logical to the young child who was merely applying the rule. Again it is preferable to model the correct forms rather than to correct the child who may as a result of correction decide that talking is too risky and not worth the effort.

Expand and Extend the Child's Utterances

Expanding a child's utterance means adding to it in some way such as adding a new descriptive vocabulary word. For example, when the toddler says "doggie! doggie!" and points to a dog, the caregiver can expand his utterance by saying, "Yes, there is a brown dog." The expansion should be simple and involve not more than one or two new words.

Extending a child's utterance means taking it to its nearest intended meaning. For example, if the toddler says, "Ball baby," the caregiver may extend with "Roll the ball to baby." Again the extension should be simple and stay as close to the child's own words as possible.

Expansion and extension are examples of providing a language "lift" to stretch the young child's language usage to a level a little bit beyond what it is now. The language lift should not be so far above the child's level as to be overwhelming and unattainable, but just a slight bit above the child's level to encourage and motivate the child to adopt the new form.

The Invitations

This chapter consists of a variety of activities to encourage children from birth to twenty-four months to communicate their feelings, thoughts, needs and desires. While I have included chronological guidelines, most of the activities are appropriate for a much wider developmental range. Feel free to choose them whenever the child indicates an interest. Not all children will be interested in all activities. An activity should be discontinued when a child becomes bored, restless, fussy, or otherwise indicates disinterest. Children should enjoy interactions with caregivers and other children so that they develop the understanding that communication is not only necessary but also pleasant.

Activities for Infants from Birth to 3 Months

Emerging ability:
communicating needs

Caregiver role:
responding quickly and consistently to baby's needs

Invitations:

1. When baby begins to cry, go to him quickly and try to determine his need. Is he hungry, wet, hot, cold, uncomfortable, or bored? Talk to him as you are feeding him or changing his diaper.

2. When baby continues to cry when you have attempted to meet all his needs, rock him gently, talk to him, and let him know that you care and are doing your best to make him comfortable.

3. When baby shows that he is attending to you by looking in your direction, talk to him and let him know you recognize his interest.

4. When baby initiates an interaction with you by making a sound or moving his arms and legs, talk to him or pick him up to let him know you want to communicate too.

5. When baby turns away, averts his eyes, or becomes fussy while you are playing with him, give him a chance to recover by leaving him alone for a few moments. Babies become overstimulated very easily during this period. If you watch baby very closely, he will tell you with his body when he is interested or overwhelmed.

Emerging ability:
cooing, gurgling, and vocalizing

Caregiver role:
imitating infant's cooing and gurgling of sound as you face him

Invitations:

1. Hold baby comfortably in your lap with his head supported so that he is looking into your face. When baby makes a sound, imitate his sound and keep the conversation going! Maintain eye contact.

2. During diaper changes, cleaning, feeding, or whenever baby vocalizes or coos, imitate his sounds as you smile at him.

3. When baby begins to coo or vocalize while you are outside the room, return to him, gently pat his stomach or back and imitate the sounds or say, "That's nice talking, Adam. I came back to let you know I hear you!"

Activities For Infants from 3 to 6 Months

Emerging ability:
babbling syllables such as "ah ba da" and stringing syllables such as "la la la," "da da da," or "da ba da da"

Caregiver role:
imitating baby's babbling

Invitations:

1. Whenever you hear baby babble sounds, syllables, or strings of syllables, imitate baby's sounds as closely as you can in an effort to encourage him to imitate you.

2. Place baby in a variety of physical positions to give him opportunities to look at a variety of objects and settings. When baby begins to babble at a new sight, imitate his sounds.

3. Hold baby in front of a mirror. When he begins to babble, imitate the sounds you hear and encourage him to have a "conversation" with you.

Emerging ability:
imitating caregiver's sounds

Caregiver role:
making sounds which baby knows and encouraging him to imitate you

Invitations:

1. Hold baby on your lap so that you are facing each other. Make a sound that baby knows how to make such as "ah ah ah" or "ah ba ah ba." Encourage him to imitate you.

2. When out of baby's sight but within hearing range, make sounds that baby knows how to make. Encourage him to imitate you.

3. Show baby a familiar sruffed animal, doll, or toy which has facial features. Babble familiar sounds to the toy and encourage baby to do the same. You may want to use a mirror and encourage baby to babble into the mirror.

4. Play a game of "Follow the Leader": (a) imitate a sound baby makes; (b) make a sound baby knows and encourage him to imitate it; and (c) make a new sound baby has not made before, such as "ma ma ma," and encourage baby to imitate the new sound. Keep the game going until baby loses interest.

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Activities For Infants from 6 to 9 Months

Emerging ability:
awareness that sounds have meanings

Caregiver role:
associating sounds with people, objects, and events

Invitations:

1. When baby makes a familiar sound which sounds like a word, such as "da da" or "ma ma" or "ba ba," say the word and associate it with the person, object, or event. For example, say, "Here is daddy (mama), " or "Here is your bottle." Point out the person indicated or give the object indicated to the child.

2. Talk frequently about what is going on around baby, such as "Here comes Kelly. She is playing with her block." "Here is your diaper. We will change your diaper. Here is some lotion to rub on." or "Let's put on your sweater and take a walk."

3. While dressing baby, name the items of clothing as you put them on. "Here is your shirt. Let's put on your pants. Here is a sock. Here is a shoe."

4. As you leave to go somewhere, say "bye-bye" to baby. When you leave the room with baby, encourage him to wave bye-bye to someone else. Do not expect the child to say "bye-bye" for several months.

5. Play "Peek-a-Boo" by covering your own face with a light cloth then pulling it off and saying, "Peek-a-Boo! I see you!" Then cover baby's face, pull off the cloth, and say, "Peek-a-Boo. There is Adam!" Encourage baby to remove the cloth.

6. When lifting baby, say "Adam is going up in the air." When putting baby down, say "Adam is going down."

Emerging ability:
laughing when tickled or amused

Caregiver role:
encouraging baby to laugh

Invitations:

1. Gently tickle baby's tummy.

2. Lift baby into the air while talking pleasantly in a high pitched, exaggerated voice.

3. Provide opportunities for baby to watch young children play or be silly.

4. Play a gentle game of tug of war with a piece of yarn, cloth, or toy. Let baby win sometimes.

5. Put a blanket over your head or do a silly thing and see if baby laughs.

Activities for Infants from 9 to 12 Months

Emerging ability:
understanding that sounds convey meanings

Caregiver role:
playing games with words and encouraging conversations

Invitations:

1. Play "Pat-a-Cake." First help baby clap his hands. Eventually baby will make clapping and rolling motions.

Pat-a-Cake, Pat-a-Cake Baker's Man
Bake me a cake as fast as you can.
Pat it, and roll it, and mark it with an A,
Put it in the oven for Adam and me!

2. Play "Pigs-to-Market" while pulling on baby's toes.

This little pig went to market.
This little pig stayed home
This little pig had roast beef
This little pig had none.
This little pig went, "wee, wee, wee!"
All the way home.

3. Name the parts of baby's body and touch each part as you name it. This is a good game to play during cleaning or dressing.

4. Play touch and say games. Put baby's hand on your eyes and say, "eyes." Then put the baby's hand on his eyes and say, "Adam's eyes." Repeat for all facial features.

5. Engage baby in conversations about anything and everything. Take baby to the window and talk about all the things you see. Encourage baby to "talk" to you and let him know you are interested in listening.

Emerging ability:
using sounds to convey meaning

Caregiver role:
encouraging baby to use sounds

Invitations:

1. Respond to baby's utterances by giving him what you think he wants.

2. When baby makes a sound as if he is naming something, touch what he is naming and say its name.

3. Encourage baby to "call" people by their names: "ma ma" for mother or "da da" for daddy.

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4. When baby indicates he wants something by gesturing, encourage him to use his voice to "tell" you what he wants.

Activities for Toddlers from 12 to 18 Months

Emerging ability:
understanding that people, objects, animals, and events have names

Caregiver role:
telling the child the names for things

Invitations:

1. Point to people and objects while saying their names. Do this over and over again with the same people and objects.

2. Continue to name parts of the body. You may want to use a doll with features and point to each feature as you name it.

3. Sing songs which name things such as "Old MacDonald."

4. Recite nursery rhymes such as "Humpty Dumpty," "Hey Diddle Diddle, the Cat and the Fiddle," and "Little Boy Blue."

5. Look at picture books with toddler and name the items, animals or people pictured.

6. Name one of toddler's toys and ask him to hand it to you.

Emerging ability:
using words to name objects

Caregiver role:
encouraging toddler to use words he knows

Invitations:

1. Talk and listen to toddler.

2. When toddler wants something, such as some water, encourage him to use the word for the object. Then praise the child for his efforts and give him the object requested.

3. While looking at pictures of objects in books, point to the pictures and name the objects. Then ask, "Where is the dog?" and ask toddler to point to it. Later, point to the dog and ask "What is this?"

4. When singing familiar songs, reciting nursery rhymes, or telling stories, leave out the last word and encourage toddler to add it.

5. Point to your nose and ask, "What is this?" Point to familiar objects and ask toddler to name them.

Activities for Toddlers from 18 to 24 Months

Emerging ability:
using words to express meanings

Caregiver role:
talking about what is happening in various situations and encouraging toddler to respond

Invitations:

1. After toddler observes you talking on the telephone, give him a toy telephone and show him how to use it.

2. Show toddler pictures in books of children expressing simple emotions (happy, sad, surprised, angry). Explain what is happening and describe the emotions expressed.

3. Sing the song, "If you are happy and you know it clap your hands!...pat your head, rub your tummy, stamp your feet!"

4. When toddler is experiencing a simple emotion, encourage him to tell you how he feels with words.

5. Provide many opportunities for toddler to play with other children somewhat younger, somewhat older, and the same age as toddler.

6. While playing with toddler in such activities as working puzzles, putting objects into containers and taking them out again, or stacking blocks, talk to toddler about what he is doing and encourage him to respond.

7. Extend toddler's words by restating what he says more completely according to his intended meaning. For example, toddler may say, "Blocks go bang!" Caregiver may elaborate with "Yes, the blocks fell down and made a loud noise!"

8. Expand toddler's verbal expressions by adding a new vocabulary word. For example, when toddler says, "Truck go beep!" the caregiver might say, "The pickup truck goes beep!"

Emerging ability:
using names and action words together

Caregiver role:
encouraging toddler to use names and action words to describe events

Invitations:

1. Look at simple picture books. Encourage toddler to describe what is happening: dog barks, truck goes, girl runs, hammer bangs, and cow moos.

2. While toddler is playing, ask him what he is doing and encourage him to tell you with action words. "Adam fall down." "Adam go up." "Adam hug baby."

3. Do simple things and ask toddler to describe what you are doing. For example:

(a) bang with a hammer

(b) jump up and down

(c) turn pages of a book

(d) kiss a doll

(e) hide a toy

4. Watch big machines at work and talk about what is happening. Encourage toddler to describe events with action words.

5. Take a walk around the neighborhood and encourage toddler to describe what other people are doing. "Mailman brings letters." "Mr. Birdwell washes car." "Kim skates." "Kelly rides her tricycle."

Chapter 6
Invitations To Move

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Introduction

Of all the areas of child development, physical development or motor development is the most striking because it is the easiest to see. During the first two years a child grows from a small infant who has little control over his bodily movements into a young child capable of crawling, walking, running, jumping, and using his eyes, hands, and fingers together to perform intricate movements such as putting puzzles together. Moving the body through space opens up a world of learning possibilities to the young child. Through movement, children learn where their bodies begin and end and where the rest of the world begins and ends. Young children who are given freedom to explore in a safe and interesting environment will develop better body images and motor skills than children whose activity is restricted and who are confined to uninteresting settings.

Up, Down and All Around

During the first two years, children begin to develop understanding of the concepts of up, down, inside, outside, over, under, right side, left side, and around. They learn these spatial relationships as a result of experiencing space by moving through it. Children who have opportunities to move their bodies up, down, inside, outside, over, under, and around will be able to understand, integrate and use these spatial concepts. Children who lack opportunities to move their bodies in these ways often develop an inadequate view of their bodies and have difficulties with gross and fine motor tasks such as turning corners, picking an adequate space to sit in, or using a writing tool.

Role of the Caregiver

A Safe Environment

When babies begin to move from place to place, a safe environment becomes very important. Young children will explore every aspect of the environment—both what is safe and what is dangerous. Toddlers love to poke fingers into holes. Therefore you need to cover electrical outlets and put potentially dangerous furnishings, including plants, out of toddler's reach. At every stage of the child's development, it's a good idea to get down on the child's level and take a good look at what he sees. From that perspective you can then make the environment as safe and interesting as possible.

When baby begins to move around and get into things, some adults prefer restricting baby's movements rather than redesigning the environment. Please don't be one of them! When a baby's movements and activities are highly restricted, baby's development is at risk. Of course babies need limits. But they also need a great deal of freedom to explore. Any device such as a playpen which restricts baby's movements has the potential to stifle his curiosity and learning if used regularly.

Freedom to Move

Infants and toddlers need a great deal of freedom of movement for exploring to develop adequately. They need floor space to practice their new motor skills such as rolling over, sitting, crawling, and walking. Beginning in baby's first month, you can put baby on a quilt or pad on the floor and play with him. It is preferable to let baby practice rolling over on a firm, unmoving surface, such as a covered floor, rather than a jiggling crib mattress. Baby will feel safer and more secure moving about on a steady surface. Another advantage of using the floor is that baby cannot roll off a floor. Baby will eventually be able to roll off a bed—much to caregiver's surprise and dismay! Most of the movement activities in this section are designed to be used with baby on the floor.

During the early months, baby develops control over moving his head and making large motor movements with his arms and legs, such as batting and kicking. Baby will benefit from being placed in a variety of physical positions for short periods, such as on the stomach, on the back, propped in a sitting position, in an infant seat or swing, or held upright. Vary a baby's physical position regularly so that baby does not get too tired of being in one position.

When baby is able to sit without support, he will enjoy sitting and playing with toys for longer periods of time. Baby will eventually learn how to get into and out of a sitting position. But until he does, caregiver should notice when he is ready to change position and change it often.

A crawling and creeping baby will benefit greatly from having unrestricted floor space on which to practice. When baby is ready to pull to stand, it is important for him to have strudy furniture to pull on. Toddlers who are walking benefit from freedom to toddle from room to room with caregiver.

Stepping Out

At each step of the child's motor development, encourage his new emerging abilities to move. Young children are often more eager to try a new skill if they have their caregiver's support and encouragement. To encourage initial movement, such as the first crawl, place favorite toys or new toys just a tiny bit out of reach so baby must move to get them.

Young children are often encouraged to try new skills just by the physical presence and closeness of the caregiver. When toddler begins taking those first steps, he is sometimes more courageous when caregiver is close enough to touch or grab than when caregiver is out of reach. Some toddlers will try walking alone only if caregiver walks behind, encircling toddler with arms close enough to hold or catch him if needed.

Verbal encouragement also works wonders. Baby will be more likely to try a movement such as rolling over when you assure him with the tone of your voice that he can do it and how excited you are for him. Showing your interest by telling him how well he is doing will help sustain his interest and will help him develop a sense of competence and mastery in his new achievements.

Activities for Infants from Birth to 3 Months

Emerging ability:
turning the head from side to side

Caregiver role:
encouraging baby's head turning

Invitation:

1. Babies generally have a preferred side to lie on. Make sure, however, that baby has opportunities to lie on both sides by alternating baby's position when you put him down on his stomach. After he has been facing the right side for a while, turn his head so that he faces the left side.

2. Alternate the position of pictures and objects in baby's crib so that he will be encouraged to turn his head to both sides in order to see interesting sights. Alternate the position of the crib mobile so that it is on the right side one day and on the left side the next day.

3. While baby is lying on his stomach with his head away from you, softly whisper his name to get him to turn his head in your direction.

4. While baby is sitting in an infant seat looking in one direction, softly ring a bell on the opposite side to encourage baby to turn his head toward the bell.

5. While baby is lying on his back in the crib with his head turned to one side, move a small flashlight about 9 inches in front of baby's eyes until you have his attention. Then slowly move the flashlight to baby's other side while baby turns his head to follow the light.

Emerging ability:
holding up the head without support

Caregiver role:
encouraging head holding to see interesting sights

Invitations:

1. During the first few months, babies develop the ability to hold up their heads. Until baby achieves good, steady control, it's important that you provide total or partial support. One of the first ways to help baby gain control is to hold baby in an upright position looking over your shoulder. When babies are put in this position, they automatically become alert and interested in the things around them.

2. Hold baby in an upright position looking over your shoulder and carry baby from room to room. Show baby interesting things to look at from his position.

3. Hold baby in an upright position looking over your shoulder and into a mirror.

4. Put baby in a variety of physical positions for short periods of time to practice holding up his head. For example, put baby in an infant seat, on his stomach, in an infant swing, in a stroller, etc., so that baby will have a variety of interesting views and will be encouraged to hold up his head to see them.

Emerging ability:
lifting the head from a flat surface

Caregiver role:
encouraging head lifting

Invitations:

1. Attach a picture of a face or a large photograph of the face of a family member to the head board of the crib so that baby will have to lift his head to a 45° angle from the mattress to see the picture.

2. Once baby has mastered lifting his head to a 45° angle, raise the picture higher so that baby will have to lift his head to a 90° angle to see the picture.

3. Tape some brightly colored ribbons to the crib head board so that baby will have to lift his head to a 90° angle to see the ribbons.

4. Place baby on his stomach on a flat surface, such as on a blanket on the floor. Put a fish bowl containing goldfish about 10 to 12 inches in front of baby's eyes.

★ NOTE: For the safety of baby and the fish, discontinue this activity when baby begins to reach out toward objects! Always supervise this activity closely, especially when other children are present.

5. When baby is able to hold his head up without support, hold baby on his stomach on top of a large inflated beach ball. Gently roll baby front to back and side to side. Baby will be encouraged to lift his head.

6. Use a cylindrical bolster or rolled up towel to prop baby on his stomach so that his chest is supported. Baby will be encouraged to lift his head.

Emerging ability:
enjoying movement and rhythm

Caregiver role:
moving with baby

Invitations:

1. Rock baby in a rocking chair a least twice a day for at least ten minutes each time. The advantages to baby are enormous. Rocking soothes baby, provides rhythmic motion, and promotes muscular strength, control, balance, and lateralization (development of the right and left sides of the body).

If you don't have a rocking chair now, seriously consider getting one. They are sometimes easy to find at garage sales. If you find yourself in a place without a rocking chair, hold baby while sitting on the edge of a sofa or chair, and rock yourself back and forth.

2. Sit on the floor with your legs bent so that your feet are on the floor and your knees are in the air. Hold baby so that his stomach is on your chest. Slowly rock backward and then rock up again into a sitting position. Repeat this rocking motion several times.

3. Play some music and dance around the floor to the music while holding baby. Alternate slow music with fast music and dance to the rhythm of the music.

Activities for Infants from 3 to 6 Months

Emerging ability:
rolling from stomach to back and from back to stomach

Caregiver role:
encouraging rolling over

Invitations:

1. Babies usually learn to roll from stomach to back before they learn to roll from back to stomach. To encourage rolling, put baby on a flat, steady surface such as a carpeted floor or a nonskidding quilt on the floor. A flat, secure surface is better than one which jiggles or moves. Give baby lots of opportunities to practice rolling by making sure that there is nothing for baby to hit or run into during his rolling.

2. While baby is lying on his stomach, positon yourself at baby's side and encourage him to roll over by talking to him.

3. Place an interesting toy so that baby can see the toy but has to roll over on his back in order to reach it. Encourage baby to reach the toy but don't frustrate him if he is not yet ready to roll.

4. While baby is lying on his stomach, gently roll baby onto his back: making sure baby's legs are extended, extend his left arm down to his side close to his body and gently roll his right leg over onto the floor. Roll baby over very slowly without jerking so that he isn't startled or frightened in any way. Repeat the roll from baby's other side so that he will get practice rolling from both sides.

5. While baby is lying on his back, gently roll baby onto his stomach: making sure baby's legs are extended, extend his left arm down to his side close to his body and gently roll his right leg over onto the floor. Roll baby over very slowly without jerking so that he isn't startled or frightened in any way. Repeat the roll from baby's other side so that he will get practice rolling from both sides. Notice how difficult it is for baby to swing his head from the mattress into the air.

Emerging ability:
moving the body a few inches through space

Caregiver role:
encouraging movement

Invitations:

1. Place interesting toys and objects in all corners of the crib so that baby will be encouraged to move from one toy to another.

2. When baby is on the floor, place toys on both sides of him and at his head and feet so that he will be encouraged to move and explore each toy.

3. When putting baby in the crib or on the floor, alternate baby's position so that his head is at the head of the crib sometimes and at the foot of the crib at other times.

4. Change the location of the crib on a regular basis so that baby will be encouraged to move and to explore a new view. For example, position the crib so that baby can look out the window. Then move it so he can see into another room.

5. Gently pull baby into a sitting position by placing your thumbs in baby's palms and gently grasping baby's arms with your fingers. Notice how baby will eventually keep his head in line with his body rather than letting it lag behind.

Repeat this activity and eventually you will not have to pull. Baby will pull himself into a sitting position while grasping your thumbs.

6. Hold baby in your lap facing you. Then stand baby up in your lap while supporting him under his arms. See if baby will extend his legs downward and put pressure on your lap.

Emerging ability:
moving arms and legs

Caregiver role:
encouraging movement of arms and legs

Invitations:

1. During baby's bath, touch each body part and name it. Encourage baby to splash the water with his arms and legs. Begin by gently taking his arm and splashing it in the water.

2. After baby's bath, massage baby's muscles beginning with his back, then arms, hands, legs, and feet.

3. Play "Pigs-to-Market" with baby's toes and fingers.

4. Play gentle tickling games. Gently tickle baby's cheek, neck, sides, arms, and legs.

5. Exercise baby's arms and legs by slowly and gently extending and flexing them. Gently extend baby's arms over his head, then out to the sides, then in front of his body. Hold baby's legs in your hands and extend them. Then alternate extending one leg while bending the other one.

6. Play "Pat-a-Cake" by gently holding and moving baby's arms. Make clapping, patting, and rolling motions.

Activities for Infants from 6 to 9 Months

Emerging ability:
sitting without support

Caregiver role:
placing baby in a sitting position

Invitations:

1. Before baby is able to sit without support, prop baby in a sitting position for short periods.

Once baby has developed the strength and muscle control to sit without support, place baby in a sitting position on a quilt on the floor. Begin by leaving baby in this position for a minute or two. Gradually work up to ten minutes. At first baby will be unable to get out of a sitting position by himself and he may tire very quickly. Eventually baby will learn to roll onto his side or stomach from a sitting position.

2. While baby is in a sitting position, give him interesting toys to manipulate, swing, bang, and shake. Rattles become excellent toys for babies who are able to sit without support and whose hands are free to shake and bang.

Babies develop gross motor and fine motor skills by having opportunities to bang, swing, shake, and drop objects while they are in a sitting position. Be sure to give baby lots of freedom and plenty of safe objects for his banging activities.

3. While baby sits up, place an object on the floor in front of him. Encourage him to move and grasp the object.

Place an object on the floor at baby's side. Encourage baby to turn at the waist and grasp the object. Then place the object at baby's other side.

4. While baby sits up on the floor, put his legs apart. Sit across from baby and roll a ball between his legs. Encourage baby to play ball and push it back to you, but don't expect him to do this very well until the end of his first year.

Emerging ability:
moving forward and backward by crawling and creeping

Caregiver role:
encouraging movement

Invitations:

1. While baby is in a sitting position on the floor, sit about three feet in front of baby. Encourage baby to get out of his sitting position and come to you. Hold up an interesting toy and say, "Come to me, Clint. Come get the toy."

2. While baby is lying on his stomach on the floor, put a favorite toy a few inches out of baby's reach to encourage baby to reach and move forward to get the toy.

Once baby can move a few inches, place the toy six inches out of reach and encourage baby to get the toy.

3. Provide a great deal of freedom and floor space for baby to practice crawling and creeping. Babies need a firm, nonslippery surface on which to practice crawling. A carpeted floor is ideal, but shag carpet tends to irritate baby's sensitive skin. And always remember: a safe environment is critical for the child on the move.

Each baby's crawling style is unique and characteristic of that individual baby. Some babies will push themselves through space, others will pull themselves along, and others resemble inch worms in their movements. No matter what baby's style for getting from one place to another, his movement opens up almost limitless opportunities for exploring his world. Get down on the floor at baby's level and discover how interesting the world appears to baby. Crawl around while baby watches your movements.

4. Place baby on the floor on his hands and knees. Encourage baby to gently rock back and forth.

5. Place baby on the floor on his hands and knees. Sit a few feet in front of baby and encourage him to move to you.

Activities for Infants from 9 to 12 Months

Emerging ability:
pulling to stand

Caregiver role:
providing a safe environment for pulling to stand

Invitations:

1. Make sure you have many sturdy pieces of furniture that baby can grasp and use to pull himself to a standing position. Be sure that the furniture is well padded and has no sharp or hard edges which baby could hit while falling. Remove or hide any electrical cords which baby might see and try to pull.

★ Furniture which encourages pulling to stand are such pieces as sofas, chairs, tables, cabinets and stairs. Furnishings which create problems for baby include fireplaces, drapes, unsturdy chairs and tables, objects which could fall from tables, TV sets, appliances, and electrical outlets. To the extent possible and practical, rid baby's environment of these items and baby-proof the rest.

2. Encourage baby to pull to stand in his crib by attaching toys to the crib bars so that baby must stand to reach them.

3. Sit on a sofa or chair and extend your hands down so that baby will grasp them and pull himself to a standing position.

4. Sit on a sofa or chair and encourage baby to grab your legs and pull himself to a standing position.

5. Stack two or three sofa cushions on top of each other and supported by the sofa so they won't slide. Place a toy on top of the cushions so that the toy is at baby's chest level when standing. Put baby in a kneeling position next to the cushions and encourage him to pull himself up to stand. If he hesitates, then place him in a half kneeling position so that one leg is kneeling and the other leg is bent with foot to the floor. Encourage him to pull to stand and find the toy.

6. Put baby in a kneeling position at a low sturdy table or cushion. Place a favorite toy on the table or cushion so that it is out of reach. Encourage baby to pull to stand in order to get the toy.

Emerging ability:
climbing

Caregiver role:
encouraging baby to climb safely

Invitations:

1. Put a large sofa or chair cushion or twin bed mattress on the floor. Encourage baby to climb on top of it. When baby masters one cushion, place a second cushion on top of the first to make a step. Support the second cushion by placing a trunk, cardboard box, or small table underneath the edge so that the cushion won't tip over when baby climbs. Hold the cushion while baby climbs.

2. Regular stairs may be too dangerous for baby. But small carpeted stairs provide opportunities for climbing. You can make your own set of two or three stairs out of large cardboard boxes in graduated sizes by gluing them together. Be sure they are sturdy enough to hold baby's weight.

3. When carpeted stairs are available, encourage baby to climb up three or four steps. You may want to position baby's leg on each step. Babies will learn to climb up steps long before they learn to climb down. Most babies will climb down by creeping backwards or scooting on their bottoms. Baby will need your help to get back down the steps. Show baby how to climb down the stairs by holding his hand and positioning baby's legs on the steps. But don't expect baby to learn to climb down until well into his second year.

★ If you have a staircase, you may want to leave two or three steps free for baby to climb and put a gate across the third or fourth. Babies who climb can easily get into trouble falling or by reaching the top of the staircase and being unable to get back down. To insure baby's safety, you need to supervise stair climbing closely.

Emerging ability:
walking while holding on

Caregiver role:
providing support while encouraging baby to walk

Invitations:

1. Hold baby's hands and encourage baby to take a few steps forward.

2. While baby stands with one hand on a sofa or low table, take baby's other hand and encourage baby to take a few steps moving along the side of the sofa or table.

3. While baby stands with both hands on the sofa, place a favorite toy at the other end of the sofa. Encourage baby to walk while holding onto the sofa to reach the toy.

Activities for Toddlers from 12 to 18 Months

Emerging ability:
walking without support

Caregiver role:
encouraging walking

Invitations:

1. While toddler is walking while holding onto a sofa or low table, kneel in front of him and encourage him to take a few steps to reach you. Reach out one hand for support.

2. Toddler will sometimes feel more secure about taking those first steps in a hallway or narrow room where the space doesn't appear so overwhelming. Take toddler into a hall and stand behind him, letting him hold your hands. As he begins to walk down the hall, gradually encourage him to let go. Keep your arm close by for support as you follow him down the hall.

3. Find another adult for this activity and put toddler between you. Take turns encouraging toddler to walk to you. Give toddler lots of praise and encouragement for this major accomplishment.

4. While toddler is playing on the floor, encourage him to pull to a standing position and walk toward you.

5. Place interesting toys, materials, and activities around the room to encourage toddler to walk to them. Be sure that toddler can reach the toys easily by storing them on child-size shelves and in containers on the floor.

Emerging ability:
pushing and pulling

Caregiver role:
providing things to push and pull

Invitations:

1. Put toddler's favorite doll or stuffed animal into a large cardboard box and encourage him to push it around the room.

2. Provide a variety of toys for pushing, such as a child-size grocery cart, lawn mower, or baby buggy.

3. Give toddler a large inflated beach ball and encourage him to push it to you.

4. Make a hole at the top of one of the sides of a large cardboard box. Put a string through the hole and knot it so that toddler can pull the box around by the string. Put toddler's favorite doll into the box and encourage him to pull it around the room.

5. Provide a variety of pull toys or tie strings around favorite toys which are suitable for pulling. Encourage toddler to pull the toys.

6. Inflate a balloon and tie it with a long string for toddler to pull.

7. Provide a small wagon for pushing and pulling activities. Put toddler inside and take him for a ride.

Activities for Toddlers from 18 to 24 Months

Emerging ability:
learning about up, down, inside, and outside by moving through space

Caregiver role:
encouraging horizontal and vertical movements through space

Invitations:

1. Help toddler learn to climb down stairs first by creeping backwards. Show toddler how to creep backwards by positioning his knees on each step as you move him down the stairs.

Later toddler will learn to step down the stairs by holding your hand and stepping slowly down each step. Toddler will use both feet on each step. Don't expect toddler to go down stairs by alternating his feet until well into his third year.

2. Lift toddler into the air while saying, "We go up, up, up,." Then put him down while saying, "Now we go down, down, down."

3. Provide opportunities for toddler to slide down a slide. If you do not have access to a toddler-size slide, then make one with sofa cushions. Prop a large sofa cushion at a 60° angle from the floor with other cushions underneath. Put a long, slippery drape of fabric such as vinyl, imitation silk, or polyester over the cushion for an easier slide. Hold the cushion while toddler slides.

4. Make a tunnel for toddler to crawl through by placing two sturdy chairs three feet apart and back to back. Drape a large sheet or blanket over the chairs and raise one end off the ground to form a doorway.

5. Design a toddler-size obstacle course. Include the tunnel described in activity #4. Also include a large cardboard box, such as an appliance box, turned upside down with doors cut in two sides for toddler to crawl through.

You may want your obstacle course to be set up with:

(a) tunnel for crawling
(b) jump rope lying on the ground (not elevated) to step over
(c) pile of large cushions for climbing up and down
(d) large cardboard box for going into and out of

6. Fly a kite with toddler. Let toddler hold the string and feel the pull of the kite. Encourage toddler to run so the kite will move up in the air. Talk about the kite flying up and falling down.

Emerging ability:

enjoying the mastery of fine and gross motor skills

Caregiver role:

showing an interest in toddler's new motor skills

Invitations:

1. Play a variety of music, with both fast and slow tempo, and encourage toddler to dance and move to the tempo. Give toddler a brightly colored scarf, ribbon, or crepe paper streamer and encourage toddler to move them with the music.

2. Clap simple slow and fast rhythms and encourage toddler to imitate them. For example, first clap one, two, three slowly; then clap quickly and see if toddler will try to imitate slow and fast. Play "Pat-a-Cake" and see if toddler will try to make the motions you make.

3. Encourage toddler to jump by holding his hands and jumping with him.

4. Make a balance beam from a board about 6' long and 6" wide. Place the flat board on the ground and hold toddler's hand while he walks down the board. Encourage toddler to walk down the board by himself. Then encourage toddler to jump off the board onto the ground.

Once toddler has mastered the board, elevate it about one inch by putting blocks or books underneath. After toddler has mastered this activity, have him do the same activity on a railroad tie placed on the ground.

5. Play ball games with toddler by rolling a ball back and forth. Begin with a large beach ball, then include a variety of balls, such as a tennis ball, rubber ball, basketball, and soccer ball. Lightweight balls and balls made from crumpled paper make entertaining balls for inside play.

6. Play games of chase and encourage toddler to run to catch you.

7. Play a game of "Follow the Leader" and encourage toddler to imitate your actions. You may want to:

(a) run
(b) roll over and over
(c) jump
(d) bounce a ball
(e) walk backwards
(f) turn around and around

Chapter 7
Invitations To Discover And Solve Problems

Introduction

One of the most important goals for the child's cognitive development during the first twenty-four months is to learn to influence the environment. Children who learn through their actions to influence the environment and cause change to occur will develop the concepts "I can make something happen. I matter. I make a difference." According to Burton White's research (1975), fully functioning, competent children by age three have learned about the qualities of objects, how things work, how to use objects as tools, how to plan, and how to make a plan work. The ingredients for developing competency in solving problems are a curious child, a warm, loving caregiver, and a responsive environment.

During the first two years of life, children use their senses of sight, hearing, taste, touch, and smell to get information about the world. It is through the senses that the child discovers the characteristics of objects such as color, size, texture, shape, smell, sound, and movement. As the child uses his senses to learn about objects, he learns cause-effect relationships. Once he has learned the concept of cause-effect relationships, the child can utilize these relationships to work toward reaching goals and solving simple problems.

Making Things Happen

Young babies do not understand cause-effect relationships very well. It is only through repeated encounters of having an effect on the environment that the child gradually develops the association between his action and a certain event. For example, it takes repeated encounters of crying coupled with the appearance of the caregiver until the baby realizes that he can actually bring the caregiver running just by crying. The baby learns, "If I cry, Mommy will come." In addition, babies whose crying is attended to immediately and consistently will also learn, "Someone cares for me. I must make a difference!" The baby will begin to anticipate the arrival of the caregiver just as he begins to anticipate getting fed by seeing the nipple or hearing the caregiver's footsteps.

By the end of the first year, most babies have developed the concept that just because the caregiver is not in view does not mean she has fallen off the edge of the earth. She continues to exist even though she cannot be seen at the moment. This concept expands to include objects which are hidden from view. Piaget calls this concept person/object permanence. A child who has not developed the object permanence concept will not look for a favorite toy hidden under a pillow even though the child has watched you hide it. A child who has developed the object permanence concept will attempt to solve the problem of the hidden toy by removing the pillow. Until a child develops object permanence, he is easily distracted away from a forbidden object when given an acceptable object with which to play.

Reaching and Grasping

One significant event which helps the baby begin to develop cause-effect connections is the ability to reach out, grasp, and manipulate objects. It is through eye-hand coordinated reaching and grasping that the world of objects is opened to the child. Children learn about the

properties of objects and how objects work by touching, mouthing, banging, and throwing the objects they handle.

Objects which do interesting things when a child handles them make it easier for a child to develop an understanding of cause-effect connections. The feedback that the child gets from an object which rattles, rings, buzzes, moves, flutters, shines, or smiles as a result of being handled helps the child learn that a certain action on his part results in a corresponding interesting event.

Using Objects as Tools

After the child has learned that he can cause certain events to happen, the child is on the road toward developing goal-directed behavior and using objects as tools to reach goals. Examples of goal-directed behavior include using a stick to retrieve a toy underneath a sofa; pulling a string in order to get an object attached to the string; pulling a cloth in order to reach a toy; and turning a plastic bowl upside down to use it as a step to reach an object on top of a counter. Goal-directed behavior is not automatic. It requires a child who has had repeated experiences with cause-effect relationships and endless opportunities for acting on his environment. Children from uninteresting, unresponsive and restricted environments do not develop goal-directed and problem-solving behaviors as readily as children from more enriched environments who have had many opportunities to interact with objects, gain control over objects and make a difference in what occurs.

Role of the Caregiver

The Importance of Attachment

The importance of a strong attachment between infant and primary caregiver has been mentioned previously in relation to its effect on the child's development of interpersonal relationships. A baby who has made a strong attachment to his caregiver will be more likely to engage in positive relationships with others. But a strong attachment is also vitally important to the baby's cognitive development as well. A child who has made a strong attachment to the caregiver will be able to use the caregiver as a security base from which to explore the environment and learn about objects and how things work. This phenomenon can be vividly seen in the exploratory behavior of the toddler in the park with his mother. The toddler will toddle off to investigate a piece of grass, then return to the mother for a moment of reassurance; toddle off to follow the movements of a bug, then return once again to the mother for an affectionate pat; toddle off again to investigate some other interesting event, then back to the mother. It appears that the child alternates venturing out to learn about the environment with touching base with the mother. The child uses the mother as a security base from which to explore other things because he feels secure enough to wander away from her for short periods of time.

A child with an inadequate attachment, may spend his time and energy clinging to the caregiver and be unable to leave her often enough to do much exploring. Most of this child's energy is spent trying to gain a more adequate attachment. As a result, the child's cognitive development suffers. The attachment relationship is a mutual one of give and take by child and caregiver. To a great extent, the quality of the relationship is due to the caregiver's sensitivity to and ability to read the child's signals of needs and satisfactions. Sensitive caregivers who are

good at interpreting the child's verbal and nonverbal signals and at meeting the child's needs both consistently and lovingly tend to have better attachments with their children.

Freedom To Explore

In order to discover how things work in the world, children must have lots of freedom to explore in a safe environment. Devices such as play pens and gates are highly restrictive and if used on a regular basis can eventually stifle a child's natural curiosity and instinct for exploration. Children should be given free run of the environment as often as possible. For the caregiver this means planning an environment which invites safe and interesting exploration.

Caregivers often describe the period when infants begin to crawl and move themselves from place to place as the "getting into everything" stage. It is typically at this point that caregivers begin to restrict the movements of infants. Too much restriction and punishment for exploration activities can destroy a child's motivation to explore, discover, and find things out. Recent research (Bradley, 1981) indicates that too much restriction coupled with the use of punishment could hinder a child's cognitive development during the first three years. Young children do need reasonable limits. These limits provide them with a sense of security. But in order to grow intellectually, infants and toddlers also need opportunities to explore—free from restriction and punishment.

Adults often mistake a child's creative experimentation for misbehavior. For example, a young child who drops peas and mashed potatoes on the floor from the top of a highchair may be conducting an experiment. When you drop peas and mashed potatoes on the floor you get two entirely different effects: peas will roll around and scatter whereas mashed potatoes tend to plop in a big glob. Caregivers who understand this type of experimentation will not become upset with the mess and will provide opportunities for such experimentation. A small vinyl mat placed underneath the highchair will also make the caregiver's life a little easier! The key here is for caregivers to recognize the importance of freedom to explore and experiment to the child's intellectual development. Recognizing how important they are, you'll want to provide opportunities which will encourage the child's natural curiosity and motivation to discover why the world works the way it does.

Responsive Environment

A responsive environment is one in which interesting things occur as a result of the child's actions. Infants and toddlers learn about the world by acting on it. When toys and objects respond to the child's movements, the child learns that he makes a difference and has some control over his life. Wachs (1978) describes a responsive environment as one in which there are many audio-visually responsive toys, a lack of overcrowding, and plentiful visual decorations in the child's room. Wachs found that infants who had been exposed to audio-visually responsive toys and a lack of overcrowding had achieved higher levels of cognitive development than infants of like age who had not. (Audio-visually responsive toys are those which make noise and produce interesting visual effects when handled by the child.) Infants deprived of a responsive environment tend to stop responding to their environment and to those who people it. As a result, their cognitive development lags behind.

The Invitations

This section consists of a variety of activities to encourage children from one to twenty-four months to discover and solve problems. While I have included chronological guidelines, most of the activities are appropriate for a much wider developmental range. Choose them whenever the child indicates an interest. Not all children will be interested in all activities. Discontinue an activity when a child becomes bored, restless, or fussy.

Activities for Infants from Birth to 3 Months

It is very easy to overwhelm an infant during the first month of life with too many toys, mobiles, objects, and stimulation. The newborn's nervous system is very immature. Babies are startled easily by the slightest noise, movement, or change in the environment. It is probably best to introduce the following activities at about one month of age.

Emerging ability:
developing an interest in objects

Caregiver role:
providing a great variety of objects for looking and listening

Invitations:

1. Decorate the baby's crib with interesting pictures, photographs, and objects. Keep some objects such as loveys, stuffed animals, or teddy bears in the baby's crib continuously to give him a sense of familiarity, constancy, and security. Other objects and pictures should be changed once a week. You can use this first set of objects again the third week. They will appear to be new objects to the baby.

★ Be sure to use only safe objects placed in such a way that they will not hinder baby's movements.

2. Tie a crib device like the one described in the activities for looking and listening (see page 27) to the sides of the crib. Suspend a toy which has facial features such as a clown rattle. After baby has grown tired of looking at the clown face, change the toy to one which has a design with much contrast, such as a bull's-eye target or checkerboard pattern. When baby gets tired of this toy, then add a new toy which has a different face or geometric design. Change the toys regularly so that baby will have new things to look at. Eventually baby will try to bat at the dangling toys.

3. Make a large simple drawing of a face with hair, eyes, and nose, but no mouth. Tape the face to the crib and note any change of baby's expression such as a puzzled look.

4. Wind up a music box which has moving parts, such as a dancing figure, and see if baby will watch and listen.

Emerging ability:
understanding the difference between objects and people

Caregiver role:
providing opportunities for interactions with objects and people

Invitations:

1. Hide at the foot or head of baby's crib and talk to baby, "Where is Mommy? Can you find me? Here I am!" Then pop up so baby can see you.

2. Use a puppet to carry on conversations with baby. Have the puppet talk to baby, then you talk to the puppet.

3. When offering a toy to baby, describe the toy: "Would you like to hold your rattle? It's nice and round and makes a fun noise." Then shake the rattle for a demonstration.

4. Play "handsy" with baby by touching and rubbing baby's hands with your hands. Then take baby's hand and put it on a small toy, then place baby's hand on your hand, then on the toy again so baby can feel the difference between you and the toy.

5. Offer a toy to baby while talking about it. When baby takes the toy, stop talking and let baby explore the toy with no distraction from you. When baby drops the toy, then begin to speak again.

Emerging ability:
anticipating the occurrence of an event

Caregiver role:
repeating certain events on a regular or daily basis

Invitations:

1. Encourage baby to become accustomed to the daily routine of the household by sequencing events in the same order each day and by talking about each event as it occurs. For example, say, "Now that you've had your breakfast, it's time for your bath." Keeping a consistent routine will also provide baby with a sense of security. Establishing a bedtime routine such as a feeding followed by rocking followed by going to bed will help prevent bedtime resistance later on.

2. Announce an event before it happens. "I'm coming into your room, Adam." "Your bottle is just about empty." "I'm going to change your diaper now."

3. Play Peek-a-Boo by hiding your face with a cloth for a few seconds, then removing it. "Where's Mommy? Here she is!"

4. Hide a toy underneath a cloth, then remove the cloth after two seconds. "Where's teddy? Here he is!" Repeat this several times a day.

5. Use an 8" x 10" piece of plain cardboard, a large picture frame, or some other object as a barrier or screen. Have baby watch a toy train or car disappear behind the screen and reappear at the other side. At first, baby will lose interest in the object when it disappears. Eventually

baby will anticipate its reappearance by watching the other side of the screen. This behavior takes a long time to develop and may not occur during this period.

When baby has learned to anticipate the emergence of the object, have the object disappear and not emerge or emerge at another location. Watch baby's surprise!

Emerging ability:
associating actions with certain results

Caregiver role:
providing opportunities for baby to have an effect on objects

Invitations:

1. Encourage infant to bat at a rattle suspended on a crib device.

2. Suspend a light weight pillow or kick toy across the crib. While baby is on his back, encourage baby to kick at the toy and see the effect.

★ Kick toys should be removed when baby is able to sit up in the crib.

3. Tie a tinkly bell bracelet or small inflated balloon around baby's wrist or ankle or put bells on baby's shoes so that baby will discover he makes a noise when he moves.

★ This activity should be highly supervised. Use a bell which is too large to be swallowed and has no separate parts which might come loose and pose a threat. Never leave baby unattended during this activity.

4. Attach a construction paper mobile to the crib so that baby will learn to make it flutter by banging his legs on the crib mattress.

5. Attach an interesting picture or photograph to the headboard of the crib at a height where baby on his stomach must lift the head to a 90° angle in order to see it.

Activities for Infants from 3 to 6 Months

Continue with the activities for one-to-three-month-old babies and begin the following ones.

Emerging ability:
using hands as reaching tools

Caregiver role:
encouraging baby to reach for objects

Invitations:

1. Hold the infant on your lap and place a new toy or object on the table in front of the baby. Say, "Get the cup!"

2. Prop baby in a sitting position with pillows or blankets. (If child has developed ability to sit without support, propping is unnecessary.) Offer him an interesting toy and watch which hand baby uses to take the toy. Then offer a second interesting toy to the hand already holding the first toy and observe what baby does. At first baby may drop the first toy to take the second toy. Eventually baby will learn to transfer the toy to the other hand in order to grab the second toy.

3. Hold out an interesting toy or object which can be easily grasped by the baby and encourage him to reach out and grasp the object. Once baby has grasped the object, gently place baby's other hand on the object and encourage manipulation of the object by the second hand. When baby drops the object, offer it again but change the angle so that baby sees a different view or side of the object.

4. Prop baby in a sitting position and place an interesting toy in front of him. Encourage baby to reach and grasp the object. Say, "Get the rattle."

5. When baby is sitting in an infant seat or swing, suspend a toy within reach of baby's grasp and encourage baby to grasp the object.

6. Attach a suction cup clown toy or other suction cup toy to the highchair tray. While baby is sitting in the highchair, encourage him to reach and grasp the toy. Some of these toys will squeak when squeezed. Do not expext baby to be able to squeeze the toy. It takes a child a long time to develop the ability to squeeze a toy and it may not occur until the end of the first year.

Emerging ability:

developing the notion that certain events are related

Caregiver role:

providing situations which exhibit cause-effect relationships

Invitations:

1. Suspend a set of crib bells or gentle noise makers across the crib. Baby will learn that "music" happens when he bats at bells with hands or feet.

★ Be sure to remove bells when baby is able to sit up in the crib.

2. Attach a bell to a crib kick toy suspended across the crib. Baby will learn to kick the toy to make the bell ring.

★ Be sure to remove the kick toy when baby is able to sit up in the crib.

3. Provide simple problem-solving toys such as a clown which dances or a face which pops up when a large ring is pulled. Be sure to use toys which baby can manipulate easily. Do not expect baby to use thumb and finger to pull the ring. The ability to use a pincer grasp (thumb-finger apposition) does not emerge until much later, toward the end of the first year.

4. Wrap a crib toy such as a glove puppet around a crib bar and attach the ends with velcro. Baby will learn to get the toy by pulling it.

Emerging ability:
developing the concept that "I make a difference!"

Caregiver role:
providing a variety of opportunities for infant to have a large effect on the environment

Invitations:

1. Encourage baby to hit and kick large inflatable toys such as a beach ball or inflatable roller he can look inside. It doesn't take much action to move these large objects and create quite an effect. Baby will learn that he can have control over some large objects.

2. Prop baby in a sitting position and place a large, musical chime ball nearby. Encourage baby to push the ball and make music. Many chime balls also contain objects which rock or rotate when the ball is pushed. Baby will learn that his actions can produce a fascinating effect.

3. Place baby in a sitting position in a highchair or infant seat. Give baby a large piece of paper, magazine page, or newspaper sheet which will make a noise when crumpled. Encourage baby to crumple the paper and produce an interesting effect. Be sure to supervise baby's actions and prevent baby from licking, mouthing, or swallowing the paper.

4. Provide large lightweight cardboard containers such as appliance boxes and encourage baby to push or kick them over.

Activities for Infants from 6 to 9 Months

Emerging ability:
developing purposeful behavior

Caregiver role:
introducing situations in which the infant can demonstrate purposeful behavior

Invitations:

1. While baby is lying on his stomach on the floor, place a novel, interesting toy about two inches beyond baby's grasp. Encourage baby to move or crawl toward the object in order to grasp it. But remember: if you place the object too far beyond baby's grasp he won't be motivated to move toward it.

2. Place one of baby's favorite toys inside a large box such as a shoe box. Encourage baby to reach in and get the toy.

3. Place a small object such as a raisin or piece of banana on the highchair tray. Encourage baby to pick up the object.

4. If baby has begun to crawl around, sit a few feet away from baby and hold an interesting toy. Encourage baby to come and get the toy.

5. When baby is crawling well, position interesting toys around the room at baby's level so that he will have a variety of objects and places to explore. For example, suspend a toy from the leg of a chair.

6. Prop baby in a sitting position. Sit opposite baby and roll a ball to him. Encourage baby to stop the ball with his hands.

Emerging ability:

using objects as tools to reach other objects

Caregiver role:

encouraging baby to use one object to reach another and providing situations in which he may do so

Invitations:

1. Tie one end of a string to the tray of baby's highchair, feeding table, or stroller. Tie the other end of the string to a favorite toy, plastic measuring cup, or plastic measuring spoon. Encourage baby to fish for the object by pulling up the string.

2. Place a towel or cloth on top of a table. Put a favorite toy on top of the towel far away from the table edge. Hold baby on your lap facing the table. Encourage baby to get the toy by pulling the towel toward him.

3. String games.

(a) Attach a favorite toy to a long piece of string or shoe lace. Sit at a table with baby on your lap. Stretch out the string in front of baby so that the empty end is close to baby and the toy is beyond reach. Encourage baby to pull the string for a big surprise. Say, "Pull the string and get the toy."

(b) Once baby has mastered the activity described in (a), use two strings of two different colors such as a red string and a green string. Attach one toy to one end of the green string and leave the red string empty. Stretch out strings so that they are parallel and about six inches apart. Baby has to choose which string to pull in order to get the toy. Encourage the baby to find out which string will bring the toy. Repeat this activity by alternating the positions of the strings, but always keep the toy tied to the same colored string (for example, always on green) as a hint.

(c) Once baby has mastered the activity described in (b), use two strings of the same color. Continue to alternate the left-right positions of the string.

(d) Next attach a toy to each of two strings. Place the toys side by side and extend the strings so they are parallel. Encourage baby to get one of the toys. For example, if you use a spoon and a teddy bear as the toys, say, "Get the teddy bear. Pull the string and get the teddy bear."

(e) Repeat the activity described in (d) but make it more difficult by crossing the strings in an X.

(f) Make the activity described in (e) more difficult by placing one of the toys so that it looks as if it's attached to the string, but is not really attached.

4. Place a toy on a table beyond baby's reach. Put a yard stick, ruler, or long stick on the table so that the end of the stick is within baby's grasp. See whether baby will use the stick to get the toy. Encourage baby to use the stick.

Emerging ability:
eliminating obstacles

Caregiver role:
setting up obstructions to baby's goals and encouraging problem-solving behavior

Invitations:

1. While baby is lying on his back, place a paper tissue gently over baby's face. Then talk to the baby and say, "Where is baby?" Encourage baby to remove the tissue. If baby becomes frightened, discontinue this activity. Do not use any covering heavier than a tissue.

2. When baby is crawling well, put a large pillow or cardboard box between you and baby. Stand or sit at one end of the room and encourage baby to crawl to you. Observe whether baby crawls over or around the barrier.

3. Cover a small object in your hand with your fingers. Observe whether baby will try to move your fingers to get the object.

4. Play peek-a-boo with a light towel in front of your face. See if baby will pull the towel down in order to see your face.

5. Hide a favorite toy underneath a transparent cover such as the see-through plastic cover which comes on gift boxes. See if baby will remove the cover to get the toy.

6. Hide a favorite toy underneath a blanket or pillow and watch to see if baby looks surprised when it disappears.

7. Cover up a doll except for its head and see if baby recognizes it. Then cover up everything but the feet; everything but an arm; or everything but the middle.

8. Hold a favorite toy for baby to grasp. As baby is reahing out for the toy, hide the toy behind a barrier such as a large piece of cardboard. See whether baby will remove the cardboard to get the toy.

9. Play "dropsy" by getting baby's attention with a toy then dropping it to the floor. Observe whether baby looks for the toy. Then drop the toy behind a barrier such as a large piece of cardboard. See if baby will look around the barrier to see the toy.

Activities for Infants from 9 to 12 Months

Continue with the activities for infants from 6 to 9 months and begin the following ones.

Emerging ability:
working toward goals

Caregiver role:
providing situations in which baby can use new skills to achieve goals

Invitations:

1. During this period, most infants enjoy filling and dumping large containers with smaller objects. Provide empty cardboard boxes, shoe boxes, plastic buckets, plastic tubs, and other large containers along with a collection of interesting objects small enough to be put into the

large containers but too large to be swallowed. Encourage baby to fill up the container and watch what happens when he turns it upside down.

2. Encourage baby to remove the large plastic rings from a stacking toy. Be sure to use a stacking toy with a flat base rather than the type that rolls. Babies become frustrated when trying to manipulate the plastic rings on a rolling stacker.

3. Seat the baby in a highchair or hold him on your lap. Put a small cup and a one-inch cube or small toy in front of baby. Say, "Put the block in the cup."

4. At one end of the room, line up three of baby's toys: a block, a teddy bear, and a doll. Start baby at the other end of the room and encourage him to crawl to reach one of the objects. Say, "Go get the doll!"

NOTE: This is an example of baby working to achieve caregiver's goals. There will be many spontaneous situations in which baby will be working to achieve his own goals. You will encourage a child's motivation and goal-directed behavior when you also provide him freedom and encouragement to work toward achieving his own goals.

Emerging ability:
solving simple problems

Caregiver role:
introducing simple problem-solving situations

Invitations:

1. Give baby two objects to hold, one in each hand. Then offer a third interesting object and observe how baby solves this problem.

2. Set a small cup upside down on top of a table in front of baby. Watch to see whether baby will turn it over.

3. Put a small piece of plastic tape on the back of one of baby's hands. Observe what baby will do to get rid of the tape. Don't let baby put the tape in his mouth. If baby becomes annoyed or upset by having the tape on his hand, remove it at once.

4. Put a small toy (too large to be swallowed) into a paper envelope. Give the envelope to baby and watch to see if baby will remove the object.

5. Line up three objects on a table in front of baby such as a cup, block, and spoon. Say,"Give me the block."

6. Hide a flat object such as a colored ribbon, piece of paper, or long bookmark between two parts of a hinged object such as between two cardboard pages of a book. Leave just enough of the bookmark showing to get baby's attention. Encourage baby to open the hinged page to get the object.

Note that during this period, infants become interested in hinged objects. A book made of thick cardboard pages will be more interesting to the child because it is a hinged object rather than because it has interesting pictures and carries a message.

Emerging ability:
developing the concept that objects continue to exist even when hidden from view

Caregiver role:
introducing hiding games

Invitations:

1. Give baby a variety of toys which have parts that visibly disappear and reappear as a result of being manipulated by baby. You can make or buy such toys. To make one of these toys, use a cardboard cylinder which has a lid on one end and is open on the other. Or use a coffee can with no sharp edges (you may want to use cloth tape over the edges) which has both ends open, and a plastic lid. Put a small hole in the middle of the lid through which a string will fit. Tie a small toy on each end of the string so that when baby pulls one end, the opposite toy will disappear. When baby pulls the other end, he can make the toy appear again.

2. While baby watches, hide a favorite toy underneath a blanket. Say, "Where is the ball? Can you find it?" See whether baby will remove the blanket to find the ball.

3. Once baby will remove the blanket to find the ball as described in #2, make the game a little more difficult. Place a pillow next to the blanket and as baby watches, hide the ball under the pillow. Do not be surprised if baby looks under the blanket and fails to look under the pillow.

4. Put two paper cups upside down on a table. While baby is watching, place a small block underneath one of the cups. See whether baby finds the block on the first try. Once baby is able to find the block, make the game more difficult by hiding the block first under one cup then under the other cup. See whether baby will look under the first cup to find the block.

5. Hide your face under a cloth, blanket, or towel and see whether baby will remove the cloth to see your face. Continue to play peek-a-boo games with baby.

Activities for Toddlers from 12 to 18 Months

Emerging ability:
using new abilities to express curiosity

Caregiver role:
arranging situations which encourage baby to use new abilities to figure things out

Invitations:

1. Hide yourself in a place where you can be easily found such as behind a bed or in a closet and call toddler in from another room to find you. Then reverse roles and have toddler hide.

2. Place two different colored paper cups, margarine containers or other containers upside down on a table or highchair tray. While toddler is watching, hide a small piece of food underneath one container. Encourage toddler to find the food. Repeat this activity alternating the positions of the containers while always hiding the food underneath the same colored container.

3. Use two identical refrigerator containers. Put one dot or sticker on one lid and two dots or two stickers on the other lid. While toddler watches, place a small piece of food inside the container with two dots. Toddler will learn to remove the lid to get the food after repeated experience.

Repeat this activity using a lid with two dots and a lid with three dots. Put a piece of food in the container with three dots. Observe whether toddler will pick the container with three dots.

4. Place several small toys inside a shoe box with a lid. Place the box inside a paper bag and close it tightly. Put the paper bag somewhere in the house where the toddler will discover it easily while exploring. For example, you may want to put it inside a kitchen cabinet he opens frequently.

If toddler does not discover the bag of hidden toys, play a game with toddler. Begin in the kitchen and say, "Let's play find the toys. Can you find the hidden toys? They're in a special place." Give toddler big hints until he finds the bag.

Emerging ability:
learning through experimenting

Caregiver role:
providing patience and encouragement for toddler's experiments

Invitations:

1. Allow toddler to be creative mixing different foods together and smearing them over the highchair tray.

2. Put a blob of fingerpaint or pudding on a paper plate and encourage toddler to fingerpaint.

★ If you use real fingerpaint be sure to prevent toddler from putting it in his mouth.

3. Drop a small toy or clothes pin into a clear plastic wide-mouthed container. Say, "Get the toy." Observe the various ways toddler will try to solve this problem.

4. Make sure toddler has a variety of toys with which he can experiment with nesting and stacking. For homemade stacking blocks, cover the holes in tissue boxes with tape so toddler can use them to stack and build.

To make nesting boxes, use a number of gift boxes in graduated sizes. Put a small one inside a larger one inside a larger one and so on. Well cleaned lids from aerosol cans in graduated sizes also make nice nesting toys.

Blocks, whether homemade or commercially produced, provide toddler with endless hours of experimentation and creative activities. Note that during this period toddler does not attempt to construct something like a house, but merely enjoys stacking blocks and knocking them down.

Emerging ability:
having a plan and making it work

Caregiver role:
providing opportunities for toddler to accomplish simple tasks

Invitations:

1. Introduce simple one-piece puzzles. You can make them easily by cutting one large shape from the middle of a heavy piece of cardboard and gluing an empty spool of thread onto the piece to serve as a knob.

Or cut a large hole in the lid of an empty coffee can. Give toddler a collection of objects of various shapes and sizes, including some too large to fit through the hole. Encourage toddler to insert the objects through the hole. Observe what toddler does with an object too large to pass through.

2. After toddler has mastered one-piece puzzles, introduce two and three-piece puzzles. Be sure to use puzzles with large knobbed pieces.

3. Provide a variety of containers with lids for screwing on and off. Try to find lids which fit toddler's hand. Drop a piece of food into one of the containers and see if toddler will unscrew the lid to get the food.

4. Provide a variety of objects which snap together and can be taken apart such as large plastic snapping beads, plastic links, and locking blocks. Toddler will also enjoy removing and replacing the parts in an old perculator.

★ Be sure to remove any small glass knobs and long metal cylinders which might be harmful before giving the perculator to toddler to play with.

Activities for Toddlers from 18 to 24 Months

Emerging ability:
searching for novelty

Caregiver role:
introducing novel toys and situations

Invitations:

1. Discover what objects interest toddler the most, then provide a great variety of these. For example, if toddler likes balls, provide a variety of balls such as a beachball, football, racquet ball, basketball, cloth ball, bean bag ball, and so on. Don't give him golf balls or balls small enough to be placed in the mouth.

2. Take toddler on a nature walk and collect interesting objects. Talk about the objects to him. Then take them home and display them.

3. Provide open-ended toys that toddler can use in a variety of ways, such as blocks. Toddler can use a block to build with; as a car; or to stand on to reach other objects. Other examples of open-ended toys are play dough or clay, paints, markers, crayons, paper, sand, and water.

★ Be sure to supervise toddler's play with these materials closely.

4. Set up a corner of toddler's room as a dramatic play area. Include props for housekeeping play such as empty food containers, plastic dishes, dolls, doll bed and furniture, refrigerator, stove, and dress up clothes.

Emerging ability:
using an adult as a resource for information

Caregiver role:
providing information when todder shows an interest in something

Invitations:

1. When toddler shows an interest in something, such as a pet, talk about it with him.

2. When toddler becomes frustrated with a task, give just enough information for toddler to complete the task. Try not to complete the task for toddler or tell him the answer. If you do so you'll rob toddler of the opportunity to figure the task out on his own.

3. When toddler asks about objects, explain their functions. For example, when toddler asks about the fire hydrant explain that that is where firefighters get water.

4. When toddler is busy playing, express a genuine interest in his activity. For example, "Look how high you've stacked the blocks!" "What pretty colors you are using in your picture!" "You really know how to scoop the sand!"

5. Try to answer toddler's questions at his level of understanding and never hesitate to say, "I don't know but I know how we can find out." Toddler will often ask many questions just to keep the conversation going.

Emerging ability:
solving problems

Caregiver role:
arranging problem-solving situations

Invitations:

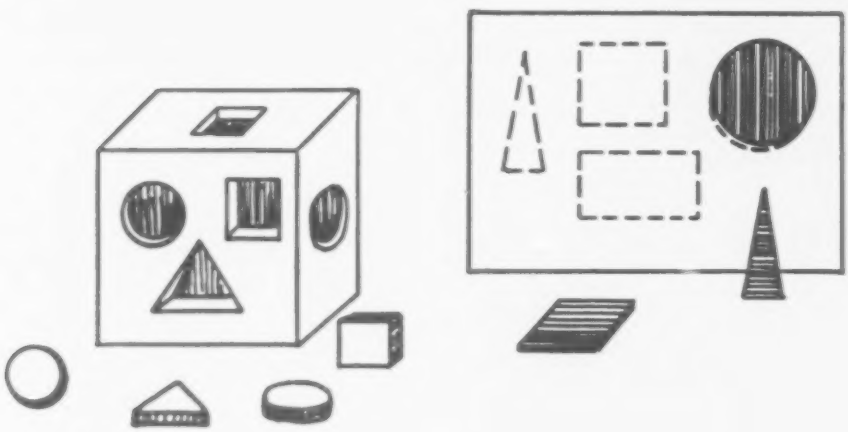
1. Place a blanket, pillow, and an upside down box in a line. While toddler watches, hide an interesting toy first under the blanket, then under the pillow, then under the box. See if toddler will look for the toy first under the box. If not, then repeat the activity with only one or two covers.

2. While toddler watches, close your hand over a small object, then hide your hand under a pillow and release the object. Close your hand and bring it out from under the pillow. Then open your hand. See if toddler will look for the object underneath the pillow.

To make this activity more difficult, hide your hand behind your back and release the object, then put your hand under the pillow. Then open your hand in front of toddler's eyes and see where he looks for the object.

3. Introduce problem-solving toys which toddler must manipulate to figure out. For example, make a problem-solving toy by attaching a bead to one end of a string and a dowel to the other. Cut a shape in a piece of cardboard just the right size for the bead to barely pass through. Put the string through the hole so that an object is on each side of the cardboard. See if toddler will figure out how to get the string free from the cardboard: either by turning the bead to fit through the hole or rotating the dowel to slip through.

4. Provide form boards and shape boards and boxes with a variety of shapes for toddler to fit.



5. Place a piece of food in a tall, narrow, plastic jar. Put a long handled spoon next to the jar. Ask toddler to get the food. Hold the jar and see if toddler will use the spoon.

Appendix A
List of Resources and Materials

Resources and Materials

Books and Records for Infants and Toddlers
Resource Books
Interesting Articles
Publications and Materials from Johnson & Johnson
Journals
Kits
Magazines
Newsletters

Books and Records for Infants and Toddlers

Books

Anybody at Home?—by H.A. Rey, Houghton Mifflin.

Baby Animals—Golden Book.

Baby's First Counting Book—a Platt & Munk, Perma-Life Book.

The Baby's Lap Book—by Kay Chorao, Dutton Publishers.

Big and Little—by J.P. Miller, Random House.

The Cow Says Moo—Random House.

Early Words—by Richard Scarry.

Feed the Animals—by H.A. Rey, Houghton Mifflin.

The Golden Egg Book—by Margaret Wise Brown, Golden Book

Good Morning, Chick—by Mirra Gensburg, Greenwillow Publishing Co.

Goodnight Moon—by Margaret Wise Brown, Harper & Row.

The Little Fur Family—by Margaret Wise Brown, Harper & Row.

My First Book of Things—by John E. Johnson, Random House.

My House—Golden Book.

My Yard—Golden Book.

Old MacDonald Had A Farm—illustrated by Pam Adams, Child's Play.

Pat the Bunny—by Dorothy Kunbardt, Golden Book.

Peek-A-Boo!—by Janet and Allan Ahlberg, the Viking Press. A good book for baby and caregiver to enjoy together.

Pigs Say Oink—by Martha Alexander, Random House.

The Real Mother Goose—illustrated by Blanche Fisher Wright, Rand McNally Publishing Co.

The Runaway Bunny—by Margaret Wise Brown, Harper & Row.

So Big!—Baby's first book, Whitman Publishing Co.

The Toolbox—by Anne and Harlow Rockwell, Collier.

Records

"Early, Early Childhood Songs" by Ella Jenkins, Scholastic LP.

"Lullaby Time for Little People" Kimbo LP.

"Music for 1's & 2's" by Tom Glazer, CMS LP.

"101 Nursery Songs" Wonderland LP.

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Appendix B

A System For Matching Caregiving Activities To The Child's Individual Temperament

A System for Matching Caregiving Activities to Child's Individual Temperament

Caregiving Activities	Individual Temperament*		
	Difficult	**Slow To Warm Up**	**Easy**
Soothing the baby	needs a lot of constant soothing when in distress; takes longer to calm down	needs some soothing; does not calm down quickly when distressed	calms down quickly and easily when soothed
Providing situations (food, people, toys, places, etc.) which contain elements of novelty, complexity, and surprise.	introduce one new thing at a time and discontinue if child becomes upset; expose child to new situations very slowly and gradually; don't force attentions of new people on the child	introduce new situations slowly allowing time for child to warm up; add variety when child shows an interest; child will eventually warm up to new people & situations	introduce new situations often, providing child with a lot of variety
Pacing activities	very slow pace	slow pace	rapid pace
Providing familiar things	needs a great deal of familiarity in surroundings, toys, and people	needs a little familiarity plus some novelty and variety	quickly tires of what's familiar; needs a great deal of novelty and variety
Routine scheduling	feels secure from having a set routine but may eat and sleep on an irregular basis	needs some sense of routine and adjusts slowly to situations	is very easygoing; gets along well with or without a set routine
Going Places	go to places close to home for short periods; may become upset if surroundings are too different from home; take along familiar toys and try to maintain routine as much as possible	go for short visits; child adjusts slowly to new surroundings but may enjoy the experience once he becomes adjusted	go frequently to a variety of places

* The categories of difficult, slow to warm up, and easy are adapted from the work of A. Thomas, S. Chess, H. Birch, and M. Hertzig, *Behavioral Individuality in Early Childhood,* New York: New York University Press, 1963.

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